		DEPARTMENT	ATE OF UTAH OF NATURAL RES OF OIL, GAS AND N				FOR				
APPLI	CATION FOR	PERMIT TO DRILL	-			1. WELL NAME and NUMBER NBU 921-35C4CS					
2. TYPE OF WORK DRILL NEW WELL		3. FIELD OR WILD	CAT NATURAL BUTTES								
4. TYPE OF WELL Gas We	ell Coall	bed Methane Well: NO				5. UNIT or COMMU	INITIZATION AGRE	EMENT NAME			
6. NAME OF OPERATOR KERF	R-MCGEE OIL &	GAS ONSHORE, L.P.				7. OPERATOR PHO	NE 720 929-6007				
8. ADDRESS OF OPERATOR		Denver, CO, 80217				9. OPERATOR E-M.	AIL eebeckDulnoan@ana	darko.com			
10. MINERAL LEASE NUMBER		11. MINERAL OWNE				12. SURFACE OWN					
(FEDERAL, INDIAN, OR STATE) UO 01194 ST		FEDERAL IND	DIAN STATE (<u> </u>	FEE 🔵		IDIAN STATE				
13. NAME OF SURFACE OWNER (if box 12	= 'fee')					14. SURFACE OWN	IER PHONE (if box	12 = 'fee')			
15. ADDRESS OF SURFACE OWNER (if box	12 = 'fee')					16. SURFACE OWN	IER E-MAIL (if box	12 = 'fee')			
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')		18. INTEND TO COM MULTIPLE FORMATI YES (Submit C			FROM NO	19. SLANT VERTICAL DI	RECTIONAL 📵 H	ORIZONTAL (
20. LOCATION OF WELL	FC	OOTAGES	QTR-QTR	9	SECTION	TOWNSHIP	RANGE	MERIDIAN			
LOCATION AT SURFACE	1686 F	NL 1699 FWL	SENW		35	9.0 S	21.0 E	S			
Top of Uppermost Producing Zone	1187 F	NL 2148 FWL	NENW		35	9.0 S	21.0 E	S			
At Total Depth	1187 F	NL 2148 FWL	NENW		35	9.0 S	21.0 E	S			
21. COUNTY UINTAH		22. DISTANCE TO N	EAREST LEASE LIN	E (Fe	et)	23. NUMBER OF A	CRES IN DRILLING	UNIT			
		25. DISTANCE TO N (Applied For Drilling)			
27. ELEVATION - GROUND LEVEL		28. BOND NUMBER	0.12	29. SOURCE OF DRILLING WA				TE ADDITION I			
5107			22013542	013542 WATER RIGHTS APPROVAL NUMBER IF AI Permit #43-8496							
		Α٦	TTACHMENTS								
VERIFY THE FOLLOWING	ARE ATTACH	HED IN ACCORDAN	CE WITH THE U	ГАН (OIL AND (GAS CONSERVAT	ION GENERAL RI	ULES			
WELL PLAT OR MAP PREPARED BY	LICENSED SU	RVEYOR OR ENGINEER	R COM	PLET	E DRILLING	6 PLAN					
AFFIDAVIT OF STATUS OF SURFACE	OWNER AGRI	EEMENT (IF FEE SURF	ACE) FOR	4 5. I	F OPERATO	R IS OTHER THAN 1	HE LEASE OWNER				
DIRECTIONAL SURVEY PLAN (IF DI	г торо	OGRA	PHICAL MA	Р							
NAME Danielle Piernot	FITLE Regulatory Analys	st	PHONE 720 929-6156								
SIGNATURE		EMAIL gnbregulatory@anadarko.com									
API NUMBER ASSIGNED 43047513510000	,	APPROVAL			Bi	oogill					
	1				Perr	nit Manager					

API Well No: 43047513510000 Received: 11/18/2010

	Proposed Hole, Casing, and Cement									
String	Hole Size	Bottom (MD)								
Prod	7.875	4.5	0	9861						
Pipe	Grade	Length	Weight							
	Grade I-80 Buttress	9731	11.6							

API Well No: 43047513510000 Received: 11/18/2010

	Proposed Hole, Casing, and Cement										
String	Hole Size	Bottom (MD)									
Surf	11	8.625	0	2450							
Pipe	Grade	Length	Weight								
	Grade J-55 LT&C	2450	28.0								

Drilling Program 1 of 16

NBU 921-35C4CS

Kerr-McGee Oil & Gas Onshore. L.P.

NBU 921-35C4CS

Surface: 1686 FNL / 1699 FWL SENW BHL: 1187 FNL / 2148 FWL NENW

Section 35 T9S R21E

Unitah County, Utah Mineral Lease: ST UT UO 01194 ST

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. & 2. Estimated Tops of Important Geologic Markers: Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1526	
Birds Nest	1822	Water
Mahogany	2201	Water
Wasatch	4801	Gas
Mesaverde	7509	Gas
MVU2	8433	Gas
MVL1	9001	Gas
TVD	9780	
TD	9861	

3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Drilling Program

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Drilling Program

5. <u>Drilling Fluids Program:</u>

Please refer to the attached Drilling Program

6. <u>Evaluation Program</u>:

Please refer to the attached Drilling Program

NBU 921-35C4CS

Drilling Program 2 of 16

7. Abnormal Conditions:

Maximum anticipated bottom hole pressure calculated at 9,780' TVD, approximately equals 5,992 psi (calculated at 0.61 psi/foot).

Maximum anticipated surface pressure equals approximately 3,840 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. <u>Variances:</u>

Please refer to the attached Drilling Program. Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- · Blowout Prevention Equipment (BOPE) requirements;
- · Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

NBU 921-35C4CS

Drilling Program 3 of 16

The air rig is then mobilized to drill the surface casing hole by drilling a 11 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie

NBU 921-35C4CS Drilling Program

line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter 4 of 16 productive formations.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

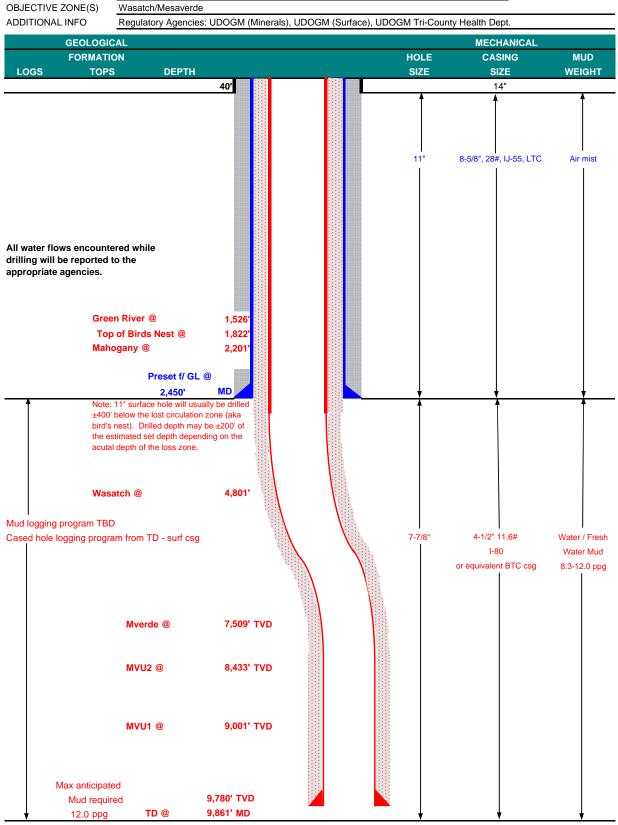
10. <u>Other Information:</u>

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME KERR-McGEE OIL & GAS ONSHORE LP DATE November 17, 2010 NBU 921-35C4CS WELL NAME 9,780' TVD 9,861' MD COUNTY Uintah FINISHED ELEVATION **FIELD** Natural Buttes STATE Utah 5,105' SURFACE LOCATION SENW 1686 FNL 1699 FWL Sec 35 T 9S R 21E Latitude: 39.995182 Longitude: -109.52158 NAD 27 BTM HOLE LOCATION NENW 1187 FNL 2148 FWL Sec 35 T 9S R 21E Latitude: 39.996548 -109.51999 NAD 27 Longitude: Wasatch/Mesaverde ADDITIONAL INFO





KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

									DESIGN FACT	ORS
	SIZE	INTE	RVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-	-40'							
								3,390	1,880	348,000
SURFACE	8-5/8"	0	to	2,450	28.00	IJ-55	LTC	0.85	1.64	5.02
								7,780	6,350	278,000
PRODUCTION	4-1/2"	0	to	9,731	11.60	I-80	BTC	2.00	1.05	2.78
								10690	7580	367000
	4-1/2"	9,731	to	9,861	11.60	HCP-110	BTC	2.71	1.24	3.68

^{*}Burst on suface casing is controlled by fracture gradient as shoe with gas gradient above.

DF = 2.20

- 1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))
- 2) MASP (Prod Casing) = Pore Pressure at TD (0.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 12.0 ppg) 0.22 psi/ft = gradient for partially evac wellbore (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MASP 3,840 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

(Burst Assumptions: TD = 12.0 ppg) 0.61 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MABHP 5,992 psi

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80	1.15
Option 1		+ 0.25 pps flocele				
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80	1.15
		+ 2% CaCl + 0.25 pps flocele				
SURFACE	_	NOTE: If well will circulate water to sur	face, optio	n 2 will be ເ	ıtilized	
Option 2 LEAD	1,950'	65/35 Poz + 6% Gel + 10 pps gilsonite	180	35%	11.00	3.82
		+ 0.25 pps Flocele + 3% salt BWOW				
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80	1.15
		+ 0.25 pps flocele				
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION LEAD	4,301'	Premium Lite II +0.25 pps	310	10%	11.00	3.38
		celloflake + 5 pps gilsonite + 10% gel				
		+ 0.5% extender				
TAIL	5,560'	50/50 Poz/G + 10% salt + 2% gel	1,070	10%	14.30	1.31
		+ 0.1% R-3				

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe

PRODUCTION

Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

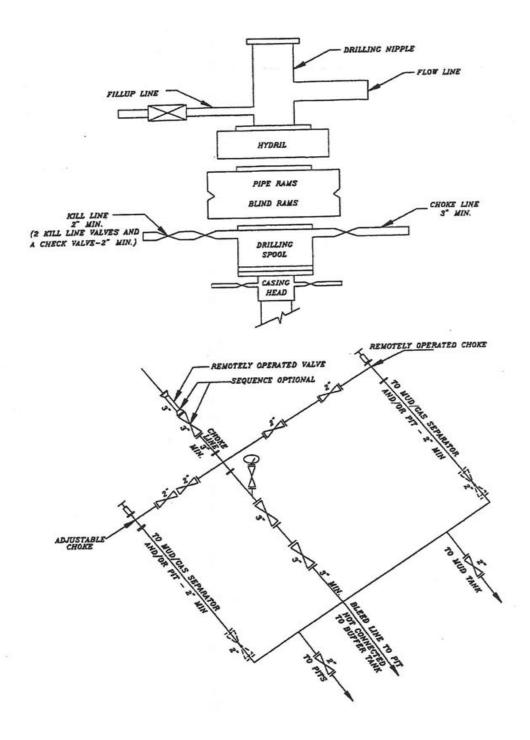
BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Survey	s will b	e taken at	1,000' r	minimu	m in	terv	als.						
	-		-					 		- 10	20.1		

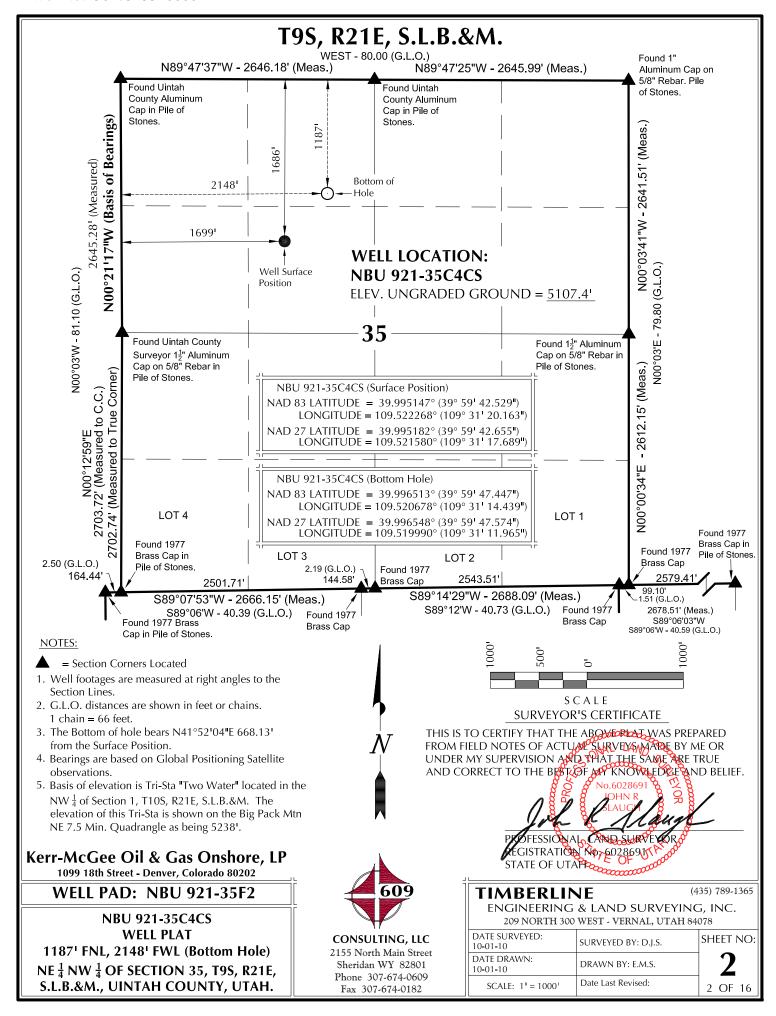
	Most rigs have PVT System	for mud monitoring. If no PVT is available, visual monitoring w	ill be utilized.	
DRILLING	ENGINEER:		DATE:	
		John Huycke / Emile Goodwin		
DRILLING	SUPERINTENDENT:		DATE:	
		John Merkel / Lovel Young		

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

EXHIBIT A NBU 921-35C4CS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK



MATERIA MATERIA	WELL NAME NAD83 NAD27								OTTOM HOLE		
WELL NAME	NAE LATITUDE	D83 LONGITUDE	NAI LATITUDE	LONGITUDE	FOOTAGES						FOOTAGES
NBU	39°59'42.551"	109°31'20.038"	39°59'42.677"	109°31'17.564"	1684' FNL	39°59'4	4.049" 1	109°31'14.435"	39°59'44.175"	109°31'11.961"	1531' FNL
921-35F1BS NBU	39.995153° 39°59'42.529"	109.522233° 109°31'20.163"	39.995188° 39°59'42.655"	109.521545° 109°31'17.689"	1709' FWL 1686' FNL	39.9955 39°59'4		109.520676° 109°31'14.439"	39.995604° 39°59'47.574"	109.519989° 109°31'11.965"	2146' FWL 1187' FNL
921-35C4CS	39.995147°	109.522268°	39.995182°	109.521580°	1699' FWL	39.9965	513° 1	109.520678°	39.996548°	109.519990°	2148' FWL
NBU 921-35E2AS	39°59'42.507" 39.995141°	109°31'20.289" 109.522303°	39°59'42.633" 39.995176°	109°31'17.815" 109.521615°	1688' FNL 1689' FWL	39°59'4 39.9956		109°31'35.133" 109.526426°	39°59'44.548" 39.995708°	109°31'32.658" 109.525738°	1498' FNL 535' FWL
NBU	39°59'42.483"	109.322303 109°31'20.414"	39°59'42.610"	109°31'17.940"	1691' FNL	39°59'4	0.115" 1	109°31'31.356"	39°59'40.241"	109°31'28.882"	1933 FNL
921-35E1CS	39.995134° 39°59'42.596"	109.522337° 109°31'19.732"	39.995169° 39°59'42.722"	109.521650° 109°31'17.258"	1679' FWL 1679' FNL	39.9944	176° 1	109.525377°	39.994511°	109.524689°	826' FWL
NBU 443	39.995165°	109.522148°	39.995200°	109.521461°	1733' FWL						
		- II		COORDINATES					II		I
WELL NAME NBU	NORTH	NIDI		ORTH EAS	NIDII	NAME	NORT		WELL NAM		EAST
921-35F1BS	151.3'	4363	-35C4CS 4	97.5' 445.	921-35	E2AS	194.5	-1155.4	921-35E1CS	-239.1	-852.0'
BASIS COOF THE S.L.B.&A	AZ=254.3 AZ=	2278° N - 884.92' N - Hole) OF THE WEST L CTION 35, T9S, TAKEN FROM	INE . R21E,	Az. to Exist. W.H.=77.95000° 54.3' NBU 921-35E1CS	EXISTING WEI		Add	A Solite of the	AZ= N70°5 (T0) 7=76.76778 N76°46'04" V		.78' e)
		k Gas Ons		4 1					S C A	L E	
		NBU 921-3			609		TI	MBERL	INF	(4:	35) 789-1365
WELL WELLS - NI	PAD INTE	RFERENCI 1BS, NBU 92	PLAT 21-35C4CS,		ULTING, LLe		DATE: 10-01-	NGINEERIN 209 NORTH : SURVEYED:	IG & LAND 300 WEST - VER SURVEYED B	SURVEYINC NAL, UTAH 840	i, INC.

WELL PAD - NBU 921-35F2 DESIGN SUMMARY

EXISTING GRADE @ CENTER OF WELL PAD = 5107.51 FINISHED GRADE ELEVATION = 5104.51 **CUT SLOPES = 1.5:1** FILL SLOPES = 1.5:1**TOTAL WELL PAD AREA = 3.44 ACRES TOTAL DAMAGE AREA = 6.28 ACRES SHRINKAGE FACTOR = 1.10 SWELL FACTOR = 1.00**

Kerr-McGee Oil & Gas Onshore, LP

1099 18th Street - Denver, Colorado 80202 **WELL PAD - NBU 921-35F2**

WELL PAD - LOCATION LAYOUT NBU 921-35F1BS, NBU 921-35C4CS,

NBU 921-35E2AS & NBU 921-35E1CS **LOCATED IN SECTION 35, T9S, R21E,** S.L.B.&M., UINTAH COUNTY, UTAH



CONSULTING, LLC 2155 North Main Street Sheridan, WY 82801 Phone 307-674-0609 Fax 307-674-0182

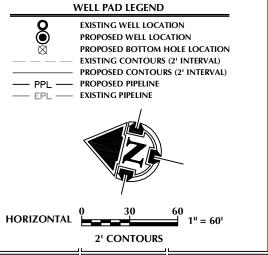
WELL PAD QUANTITIES

TOTAL CUT FOR WELL PAD = 9.194 C.Y.TOTAL FILL FOR WELL PAD = 7,785 C.Y. TOPSOIL @ 6° DEPTH = 1,716 C.Y. EXCESS MATERIAL = 1,409 C.Y.

RESERVE PIT QUANTITIES

TOTAL CUT FOR RESERVE PIT +/- 11.020 CY RESERVE PIT CAPACITY (2' OF FREEBOARD) +/- 42,290 BARRELS

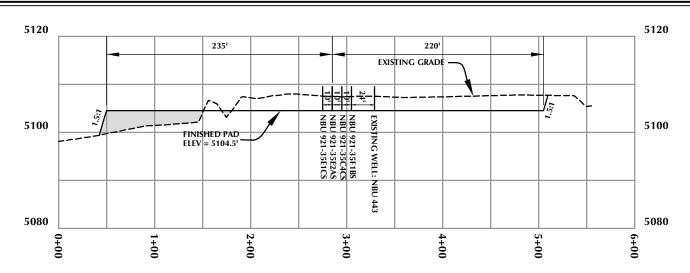
(435) 789-1365 **TIMBERLINE** ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078



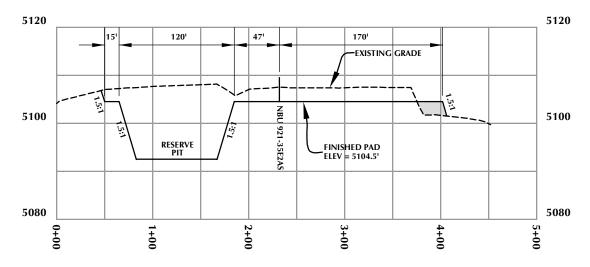
10/19/10 JFE 12/9/10 **REVISED:**

SHEET NO: b 6 OF 16





CROSS SECTION A-A'



CROSS SECTION B-B¹

Kerr-McGee Oil & Gas Onshore, LP

1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-35F2

WELL PAD - CROSS SECTIONS NBU 921-35F1BS, NBU 921-35C4CS, NBU 921-35E2AS & NBU 921-35E1CS LOCATED IN SECTION 35, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH



CONSULTING, LLC 2155 North Main Street Sheridan, WY 82801 Phone 307-674-0609 Fax 307-674-0182

HORIZONTAL	0 50	100	
VERTICAL	0 10	20	

TIMBERLINE (435) 789-11
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

365	Scale:	1"=100'	Date:	10/15/10	SHEET NO:	
•	REVISED	:			7	7 OF 16

RESERVE PIT

PLEASE NOTE: LOCATIONS OF FACILITIES AND PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED

DURING CONSTRUCTION.

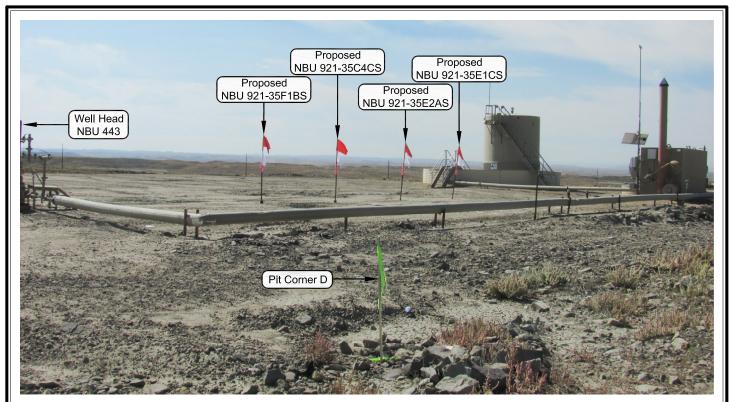


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

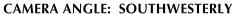




PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: NORTHWESTERLY

Kerr-McGee Oil & Gas Onshore, LP 1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 921-35F2

LOCATION PHOTOS
NBU 921-35F1BS, NBU 921-35C4CS,
NBU 921-35E2AS & NBU 921-35E1CS
LOCATED IN SECTION 35, T9S, R21E,
S.L.B.&M., UINTAH COUNTY, UTAH.



CONSULTING, LLC 2155 North Main Street

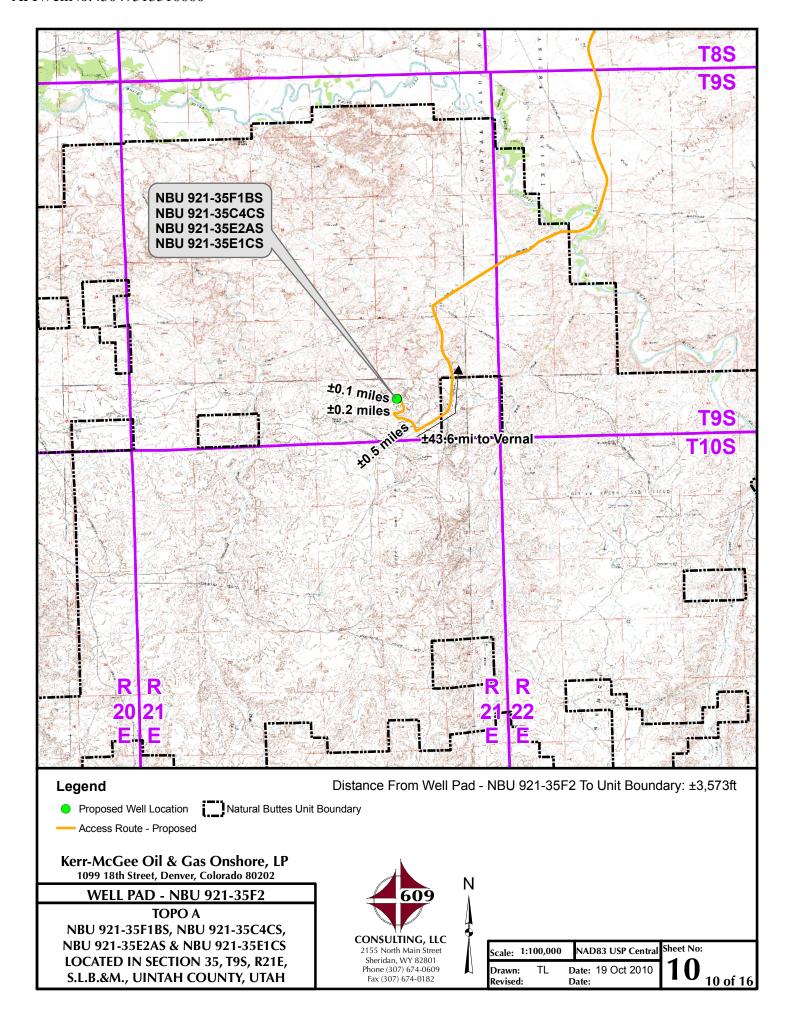
2155 North Main Stree Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

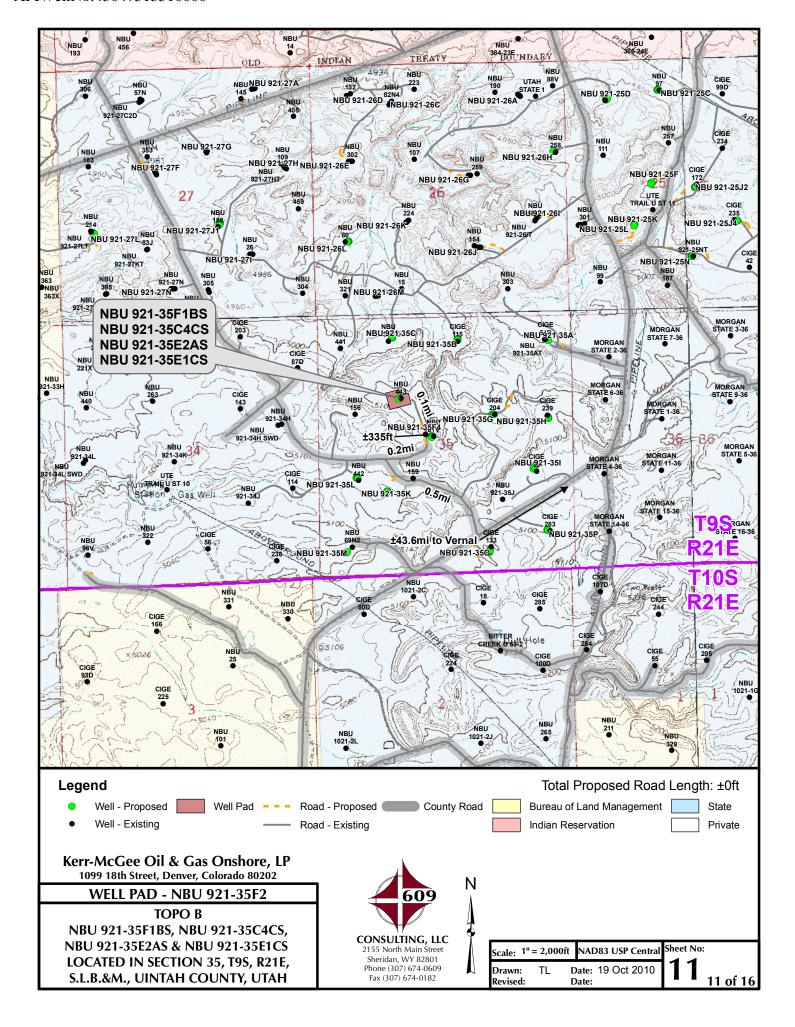
TIMBERLINE

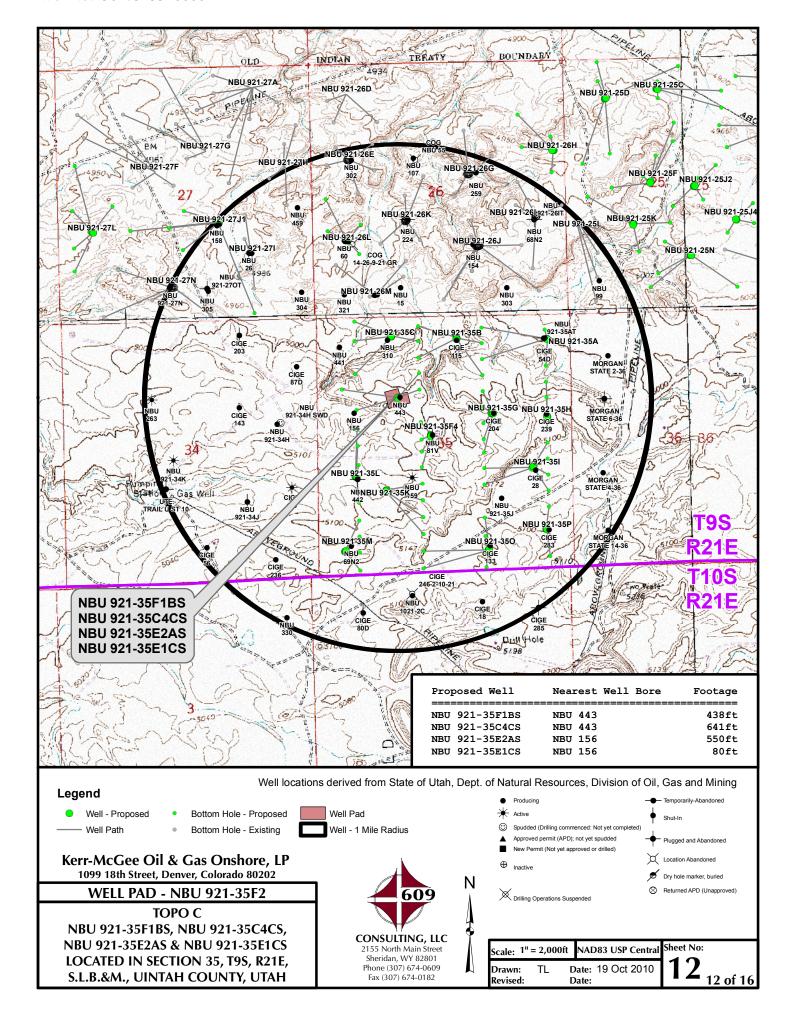
(435) 789-1365

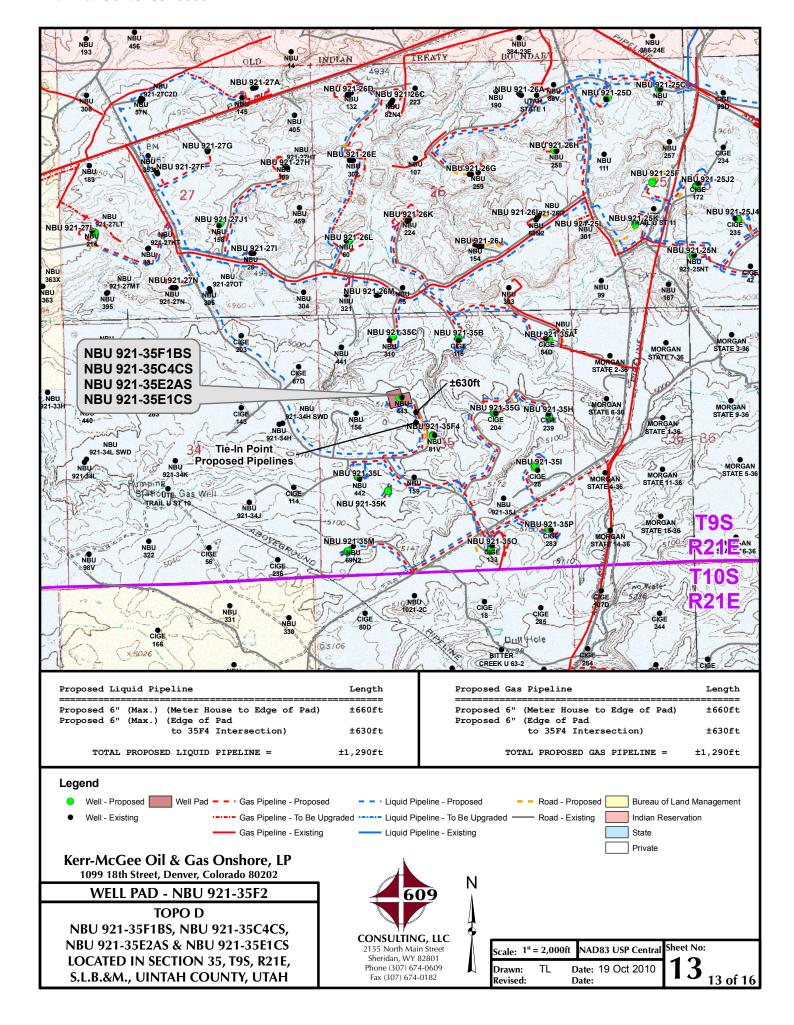
ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078

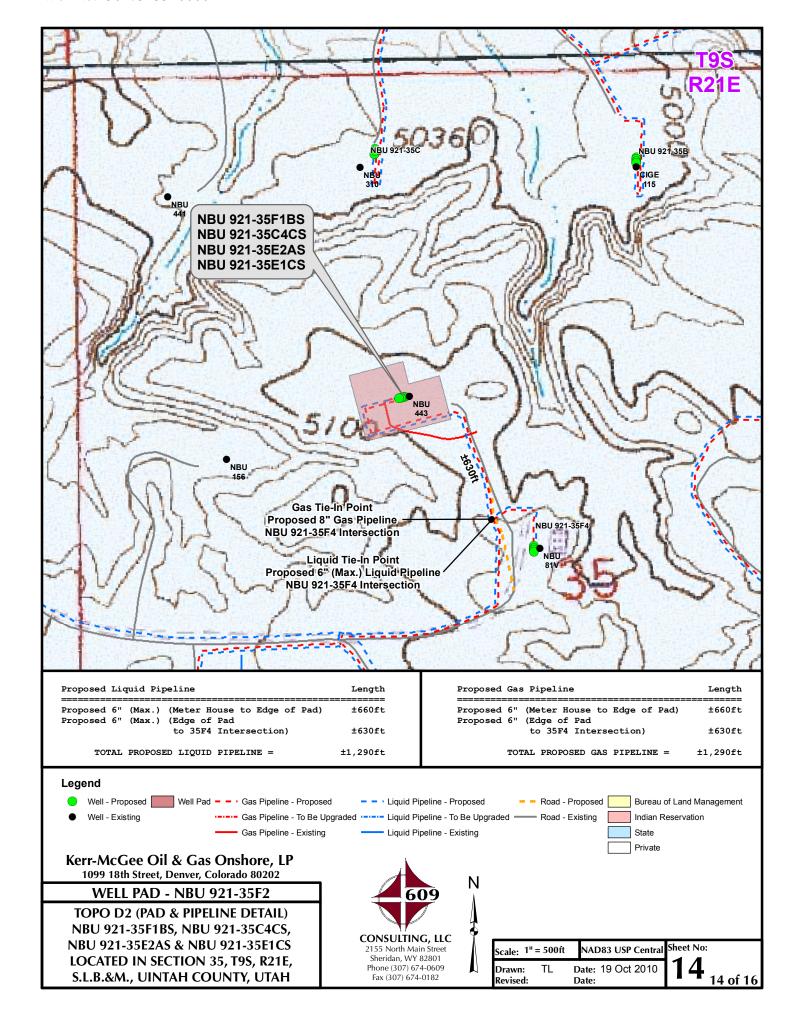
209 NORTH 300	WEST - VERNAL, UTAH 84	078
DATE PHOTOS TAKEN: 10-01-10	PHOTOS TAKEN BY: D.J.S.	SHEET NO:
DATE DRAWN: 10-01-10	DRAWN BY: E.M.S.	9
Date Last Revised:		9 OF 16

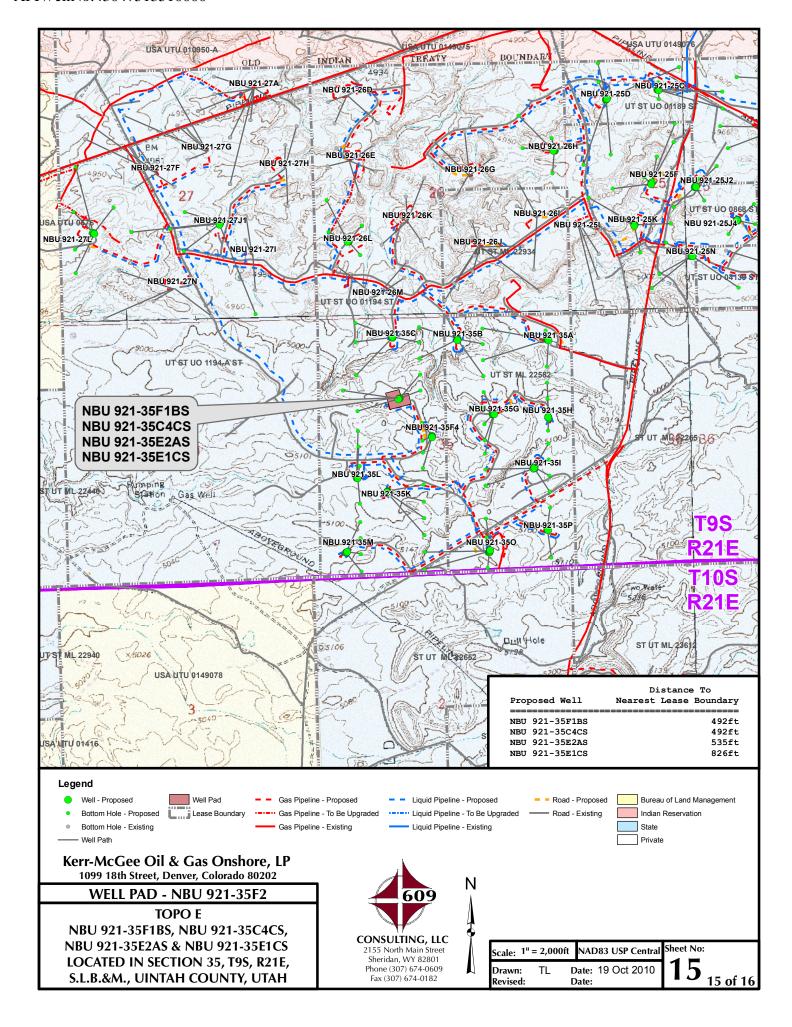












Kerr-McGee Oil & Gas Onshore, LP WELL PAD – NBU 921-35F2 WELLS – NBU 921-35F1BS, NBU 921-35C4CS, NBU 921-35E2AS & NBU 921-35E1CS Section 35, T9S, R21E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 20.1 miles to a Class D County Road to the northwest. Exit right and proceed in a northwesterly direction along the Class D County Road approximately 0.5 miles to a second Class D County Road to the east. Exit right and proceed in an easterly then northeasterly direction along the second Class D County Road approximately 0.2 miles to the proposed NBU 921-35F4 well pad. Continue in a northwesterly direction through the proposed NBU 921-35F4 well pad approximately 335 feet to a service road to the northwest. Continue in a northwesterly direction along the service road approximately 0.1 miles to the proposed well pad.

Total distance from Vernal, Utah to the proposed well location is approximately 44.5 miles in a southerly direction.



-750

1500

Vertical Section at 41.84° (1500 ft/in)

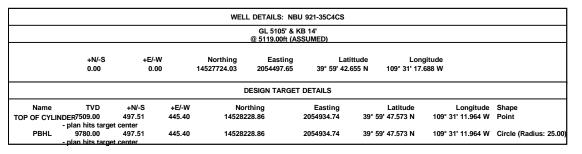
2250

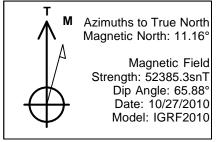
Project: Uintah County, UT UTM12 Site: NBU 921-35F2 Pad

Well: NBU 921-35C4CS ellbore: OH

Wellbore: OH Design: PLAN #1



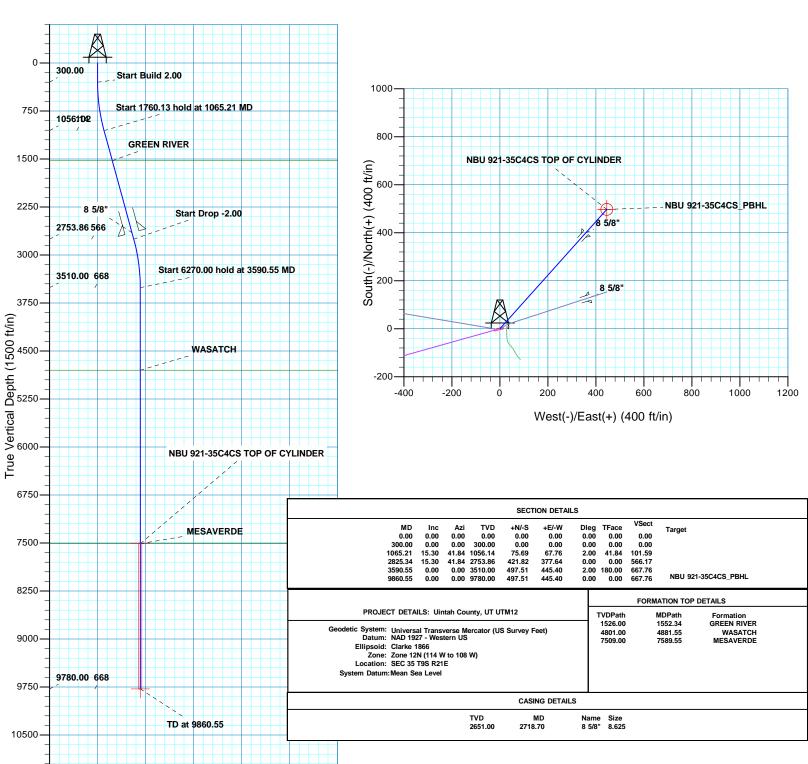




Plan: PLAN #1 (NBU 921-35C4CS/OH)

Date: 8:21, October 28 2010

Created By: RobertScott





Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12 NBU 921-35F2 Pad NBU 921-35C4CS

ОН

Plan: PLAN #1

Standard Planning Report

28 October, 2010







EDM5000-RobertS-Local Database:

Company: Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12

NBU 921-35F2 Pad Site: Well: NBU 921-35C4CS

Wellbore: ОН Design: PLAN #1 Local Co-ordinate Reference:

TVD Reference:

@ 5119.00ft (ASSUMED) MD Reference: GL 5105' & KB 14' @ 5119.00ft (ASSUMED)

North Reference:

Survey Calculation Method:

Minimum Curvature

41.84

Well NBU 921-35C4CS

GL 5105' & KB 14'

Project Uintah County, UT UTM12

Map System: Universal Transverse Mercator (US Survey Feet)

NAD 1927 - Western US Geo Datum:

System Datum: Mean Sea Level

Zone 12N (114 W to 108 W) Map Zone:

NBU 921-35F2 Pad, SEC 35 T9S R21E Site

Northing: 14,527,718.98 usft Site Position: Latitude: 39° 59' 42.608 N From: Lat/Long Easting: 2,054,478.12 usft Longitude: 109° 31' 17.940 W

Position Uncertainty: 0.00 ft Slot Radius: 13.200 in **Grid Convergence:** 0.95°

Well NBU 921-35C4CS, 1686' FNL 1699' FWL

0.00

Well Position +N/-S 4.73 ft 14,527,724.04 usft Latitude: 39° 59' 42.655 N Northing:

+E/-W 19.61 ft Easting: 2,054,497.65 usft Longitude: 109° 31' 17.688 W

Position Uncertainty 0.00 ft Wellhead Elevation: **Ground Level:** 5.105.00 ft

ОН Wellbore Declination Field Strength Magnetics **Model Name** Sample Date Dip Angle (°) (°) (nT) IGRF2010 10/27/2010 11.16 65.88 52,385

PLAN #1 Design **Audit Notes:** PLAN 0.00 Version: Phase: Tie On Depth: +N/-S Vertical Section: Depth From (TVD) +E/-W Direction (ft) (ft) (ft) (°)

0.00

0.00

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,065.21	15.30	41.84	1,056.14	75.69	67.76	2.00	2.00	0.00	41.84	
2,825.34	15.30	41.84	2,753.86	421.82	377.64	0.00	0.00	0.00	0.00	
3,590.55	0.00	0.00	3,510.00	497.51	445.40	2.00	-2.00	0.00	180.00	
9,860.55	0.00	0.00	9,780.00	497.51	445.40	0.00	0.00	0.00	0.00	NBU 921-35C4CS_PI





Database: EDM5000-RobertS-Local

Company: Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12

 Site:
 NBU 921-35F2 Pad

 Well:
 NBU 921-35C4CS

Wellbore: OH
Design: PLAN #1

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Well NBU 921-35C4CS GL 5105' & KB 14' @ 5119.00ft (ASSUMED)

GL 5105' & KB 14' @ 5119.00ft (ASSUMED)

True

ned Surv	ov									
ineu Surv	еу									
Meas De _l (f	pth	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
2	200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
;	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
Star	t Build 2.	.00								
4	400.00	2.00	41.84	399.98	1.30	1.16	1.75	2.00	2.00	0.00
ı	500.00	4.00	41.84	499.84	5.20	4.65	6.98	2.00	2.00	0.00
	600.00	6.00	41.84	599.45	11.69	10.47	15.69	2.00	2.00	0.00
	700.00	8.00	41.84	698.70	20.77	18.60	27.88	2.00	2.00	0.00
	800.00	10.00	41.84	797.47	32.43	29.03	43.52	2.00	2.00	0.00
	900.00	12.00	41.84	895.62	46.64	41.76	62.60	2.00	2.00	0.00
	00.000	14.00	41.84	993.06	63.40	56.76	85.10	2.00	2.00	0.00
	065.21	15.30	41.84	1,056.14	75.69	67.76	101.59	2.00	2.00	0.00
		hold at 1065.21								
	100.00	15.30	41.84	1,089.70	82.53	73.89	110.77	0.00	0.00	0.00
	200.00	15.30	41.84	1,186.15	102.20	91.49	137.17	0.00	0.00	0.00
1,3	300.00	15.30	41.84	1,282.61	121.86	109.10	163.56	0.00	0.00	0.00
1.4	400.00	15.30	41.84	1,379.06	141.53	126.70	189.96	0.00	0.00	0.00
	500.00	15.30	41.84	1,475.51	161.19	144.31	216.35	0.00	0.00	0.00
	552.34	15.30	41.84	1,526.00	171.48	153.52	230.17	0.00	0.00	0.00
	EN RIVE			,						
	600.00	15.30	41.84	1,571.97	180.86	161.91	242.75	0.00	0.00	0.00
	700.00	15.30	41.84	1,668.42	200.52	179.52	269.14	0.00	0.00	0.00
	00.008	15.30	41.84	1,764.88	220.19	197.13	295.53	0.00	0.00	0.00
	900.00	15.30 15.30	41.84	1,861.33 1,957.78	239.85	214.73 232.34	321.93 348.32	0.00	0.00	0.00
	000.00 100.00	15.30	41.84 41.84	2,054.24	259.52 279.18	232.3 4 249.94	346.32 374.72	0.00 0.00	0.00 0.00	0.00 0.00
	200.00	15.30	41.84	2,054.24	298.85	267.55	401.11	0.00	0.00	0.00
	300.00	15.30	41.84	2,247.15	318.51	285.15	427.51	0.00	0.00	0.00
	400.00	15.30	41.84	2,343.60	338.18	302.76	453.90	0.00	0.00	0.00
	500.00	15.30	41.84	2,440.05	357.84	320.36	480.29	0.00	0.00	0.00
	600.00	15.30	41.84	2,536.51	377.51	337.97	506.69	0.00	0.00	0.00
2,	700.00	15.30	41.84	2,632.96	397.17	355.57	533.08	0.00	0.00	0.00
2,7	718.70	15.30	41.84	2,651.00	400.85	358.87	538.02	0.00	0.00	0.00
8 5/8	3"									
	800.00	15.30	41.84	2,729.41	416.84	373.18	559.48	0.00	0.00	0.00
	825.34	15.30	41.84	2,753.86	421.82	377.64	566.17	0.00	0.00	0.00
Star	t Drop -2	.00								
	900.00	13.81	41.84	2,826.12	435.80	390.16	584.93	2.00	-2.00	0.00
3,0	00.00	11.81	41.84	2,923.62	452.32	404.95	607.10	2.00	-2.00	0.00
	100.00	9.81	41.84	3,021.84	466.29	417.46	625.86	2.00	-2.00	0.00
	200.00	7.81	41.84	3,120.66	400.29 477.71	427.67	641.18	2.00	-2.00 -2.00	0.00
	300.00	5.81	41.84	3,219.95	486.54	435.58	653.04	2.00	-2.00	0.00
	400.00	3.81	41.84	3,319.59	492.79	441.18	661.42	2.00	-2.00 -2.00	0.00
	500.00	1.81	41.84	3,419.46	496.44	444.45	666.33	2.00	-2.00	0.00
	590.55	0.00	0.00	3,510.00	497.51	445.40	667.76	2.00	-2.00	-46.20
		hold at 3590.55								
,	600.00	0.00	0.00	3,519.45	497.51	445.40	667.76	0.00	0.00	0.00
	700.00	0.00	0.00	3,619.45	497.51	445.40	667.76	0.00	0.00	0.00
	800.00	0.00	0.00	3,719.45	497.51	445.40	667.76	0.00	0.00	0.00
3.9	900.00	0.00	0.00	3,819.45	497.51	445.40	667.76	0.00	0.00	0.00





Database: EDM5000-RobertS-Local

Company: Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12

 Site:
 NBU 921-35F2 Pad

 Well:
 NBU 921-35C4CS

Wellbore: OH
Design: PLAN #1

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference: Survey Calculation Method: Well NBU 921-35C4CS GL 5105' & KB 14' @ 5119.00ft (ASSUMED)

@ 5119.00ft (ASSUMED) GL 5105' & KB 14' @ 5119.00ft (ASSUMED)

True

anned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,000.00	0.00	0.00	3,919.45	497.51	445.40	667.76	0.00	0.00	0.00
4,100.00	0.00	0.00	4,019.45	497.51	445.40	667.76	0.00	0.00	0.00
4,200.00	0.00	0.00	4,119.45	497.51	445.40	667.76	0.00	0.00	0.00
4,300.00	0.00	0.00	4,219.45	497.51	445.40	667.76	0.00	0.00	0.00
4,400.00	0.00	0.00	4,319.45	497.51	445.40	667.76	0.00	0.00	0.00
4,500.00	0.00	0.00	4,419.45	497.51	445.40	667.76	0.00	0.00	0.00
4,600.00	0.00	0.00	4,519.45	497.51	445.40	667.76	0.00	0.00	0.00
4,700.00	0.00	0.00	4,619.45	497.51	445.40	667.76	0.00	0.00	0.00
4,800.00	0.00	0.00	4,719.45	497.51	445.40	667.76	0.00	0.00	0.00
4,881.55	0.00	0.00	4,801.00	497.51	445.40	667.76	0.00	0.00	0.00
WASATCH									
4,900.00	0.00	0.00	4,819.45	497.51	445.40	667.76	0.00	0.00	0.00
5,000.00	0.00	0.00	4,919.45	497.51	445.40	667.76	0.00	0.00	0.00
5,100.00	0.00	0.00	5,019.45	497.51	445.40	667.76	0.00	0.00	0.00
5,200.00	0.00	0.00	5,119.45	497.51	445.40	667.76	0.00	0.00	0.00
5,300.00	0.00	0.00	5,219.45	497.51	445.40	667.76	0.00	0.00	0.00
5,400.00	0.00	0.00	5,319.45	497.51	445.40	667.76	0.00	0.00	0.00
5,500.00	0.00	0.00	5,419.45	497.51	445.40	667.76	0.00	0.00	0.00
5,600.00	0.00	0.00	5,519.45	497.51	445.40	667.76	0.00	0.00	0.00
5,700.00	0.00	0.00	5,619.45	497.51	445.40	667.76	0.00	0.00	0.00
5,800.00	0.00	0.00	5,719.45	497.51	445.40	667.76	0.00	0.00	0.00
5,900.00	0.00	0.00	5,819.45	497.51	445.40	667.76	0.00	0.00	0.00
6,000.00	0.00	0.00	5,919.45	497.51	445.40	667.76	0.00	0.00	0.00
6,100.00	0.00	0.00	6,019.45	497.51	445.40	667.76	0.00	0.00	0.00
6,200.00	0.00	0.00	6,119.45	497.51	445.40	667.76	0.00	0.00	0.00
6,300.00	0.00	0.00	6,219.45	497.51	445.40	667.76	0.00	0.00	0.00
6,400.00	0.00	0.00	6,319.45	497.51	445.40	667.76	0.00	0.00	0.00
6,500.00	0.00	0.00	6,419.45	497.51	445.40	667.76	0.00	0.00	0.00
6,600.00	0.00	0.00	6,519.45	497.51	445.40	667.76	0.00	0.00	0.00
6,700.00	0.00	0.00	6,619.45	497.51	445.40	667.76	0.00	0.00	0.00
6,800.00	0.00	0.00	6,719.45	497.51	445.40	667.76	0.00	0.00	0.00
6,900.00	0.00	0.00	6,819.45	497.51	445.40	667.76	0.00	0.00	0.00
7,000.00	0.00	0.00	6,919.45	497.51	445.40	667.76	0.00	0.00	0.00
7,100.00	0.00	0.00	7,019.45	497.51	445.40	667.76	0.00	0.00	0.00
7,200.00	0.00	0.00	7,119.45	497.51	445.40	667.76	0.00	0.00	0.00
7,300.00	0.00	0.00	7,219.45	497.51	445.40	667.76	0.00	0.00	0.00
7,400.00	0.00	0.00	7,319.45	497.51	445.40	667.76	0.00	0.00	0.00
7,500.00	0.00	0.00	7,419.45	497.51	445.40	667.76	0.00	0.00	0.00
7,589.55	0.00	0.00	7,509.00	497.51	445.40	667.76	0.00	0.00	0.00
	- NBU 921-35C		YLINDER						
7,600.00	0.00	0.00	7,519.45	497.51	445.40	667.76	0.00	0.00	0.00
7,700.00	0.00	0.00	7,619.45	497.51	445.40	667.76	0.00	0.00	0.00
7,800.00	0.00	0.00	7,719.45	497.51	445.40	667.76	0.00	0.00	0.00
7,900.00	0.00	0.00	7,819.45	497.51	445.40	667.76	0.00	0.00	0.00
8,000.00	0.00	0.00	7,919.45	497.51	445.40	667.76	0.00	0.00	0.00
8,100.00	0.00	0.00	8,019.45	497.51	445.40	667.76	0.00	0.00	0.00
8,200.00	0.00	0.00	8,119.45	497.51	445.40	667.76	0.00	0.00	0.00
8,300.00	0.00	0.00	8,219.45	497.51	445.40	667.76	0.00	0.00	0.00
8,400.00	0.00	0.00	8,319.45	497.51	445.40	667.76	0.00	0.00	0.00
8,500.00	0.00	0.00	8,419.45	497.51	445.40	667.76	0.00	0.00	0.00
8,600.00	0.00	0.00	8,519.45	497.51	445.40	667.76	0.00	0.00	0.00
	0.00	0.00	8,619.45	497.51	445.40	667.76	0.00	0.00	0.00





Database: EDM5000-RobertS-Local

Company: Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12

 Site:
 NBU 921-35F2 Pad

 Well:
 NBU 921-35C4CS

Wellbore: OH
Design: PLAN #1

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference: Survey Calculation Method: Well NBU 921-35C4CS GL 5105' & KB 14'

@ 5119.00ft (ASSUMED) GL 5105' & KB 14' @ 5119.00ft (ASSUMED)

True

nned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,800.00	0.00	0.00	8,719.45	497.51	445.40	667.76	0.00	0.00	0.00
8,900.00	0.00	0.00	8,819.45	497.51	445.40	667.76	0.00	0.00	0.00
9,000.00	0.00	0.00	8,919.45	497.51	445.40	667.76	0.00	0.00	0.00
9,100.00	0.00	0.00	9,019.45	497.51	445.40	667.76	0.00	0.00	0.00
9,200.00	0.00	0.00	9,119.45	497.51	445.40	667.76	0.00	0.00	0.00
9,300.00	0.00	0.00	9,219.45	497.51	445.40	667.76	0.00	0.00	0.00
9,400.00	0.00	0.00	9,319.45	497.51	445.40	667.76	0.00	0.00	0.00
9,500.00	0.00	0.00	9,419.45	497.51	445.40	667.76	0.00	0.00	0.00
9,600.00	0.00	0.00	9,519.45	497.51	445.40	667.76	0.00	0.00	0.00
9,700.00	0.00	0.00	9,619.45	497.51	445.40	667.76	0.00	0.00	0.00
9,800.00	0.00	0.00	9,719.45	497.51	445.40	667.76	0.00	0.00	0.00
9,860.55	0.00	0.00	9,780.00	497.51	445.40	667.76	0.00	0.00	0.00
NBU 921-35	C4CS_PBHL								

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
NBU 921-35C4CS TOP - plan hits target cent - Point	0.00 ter	0.00	7,509.00	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
NBU 921-35C4CS_PBH - plan hits target cent - Circle (radius 25.00		0.00	9,780.00	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W

Casing Points					
	Measured Depth	Vertical Depth		Casing Diameter	Hole Diameter
	(ft)	(ft)	Name	(in)	(in)
			Hame		
	2,718.70	2,651.00 8 5/8"		8.625	11.000

Formations							
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
	1,552.34	1,526.00	GREEN RIVER				
	4,881.55	4,801.00	WASATCH				
	7,589.55	7,509.00	MESAVERDE				





Database: EDM5000-RobertS-Local

Company: Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12

 Site:
 NBU 921-35F2 Pad

 Well:
 NBU 921-35C4CS

Wellbore: OH
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Local Co-ordinate Reference:

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North Reference:

Survey Calculation Method:

Well NBU 921-35C4CS

GL 5105' & KB 14'

@ 5119.00ft (ASSUMED) GL 5105' & KB 14'

@ 5119.00ft (ASSUMED) True

Plan Annotations				
Measured	Vertical	Local Coor	dinates	
Depth	Depth	+N/-S	+E/-W	
(ft)	(ft)	(ft)	(ft)	Comment
300.0	300.00	0.00	0.00	Start Build 2.00
1,065.2	1 1,056.14	75.69	67.76	Start 1760.13 hold at 1065.21 MD
2,825.3	4 2,753.86	421.82	377.64	Start Drop -2.00
3,590.5	5 3,510.00	497.51	445.40	Start 6270.00 hold at 3590.55 MD
9,860.5	5 9,780.00	497.51	445.40	TD at 9860.55



Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12 NBU 921-35F2 Pad NBU 921-35C4CS

OH

Plan: PLAN #1

Standard Planning Report - Geographic

28 October, 2010





SDI Planning Report - Geographic



EDM5000-RobertS-Local Database:

Company: Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12

NBU 921-35F2 Pad Site: Well: NBU 921-35C4CS

Wellbore: ОН Design: PLAN #1 **Local Co-ordinate Reference:**

TVD Reference:

GL 5105' & KB 14' @ 5119.00ft (ASSUMED) MD Reference: GL 5105' & KB 14'

@ 5119.00ft (ASSUMED) North Reference:

Survey Calculation Method:

Well NBU 921-35C4CS

Minimum Curvature

Project Uintah County, UT UTM12

Universal Transverse Mercator (US Survey Feet) Map System:

NAD 1927 - Western US Geo Datum: Map Zone: Zone 12N (114 W to 108 W) System Datum: Mean Sea Level

Site NBU 921-35F2 Pad, SEC 35 T9S R21E 14,527,718.98 usft Site Position: Northing: Latitude: 39° 59' 42.608 N 109° 31' 17.940 W Lat/Long 2,054,478.12 usft Easting: From: Longitude: Slot Radius: 0.95° 0.00 ft 13.200 in **Position Uncertainty: Grid Convergence:**

NBU 921-35C4CS, 1686' FNL 1699' FWL Well **Well Position** 39° 59' 42.655 N +N/-S 0.00 ft Northing: 14,527,724.04 usft Latitude: +E/-W 0.00 ft 2,054,497.65 usft Longitude: 109° 31' 17.688 W Easting: 0.00 ft 5,105.00 ft **Position Uncertainty** Wellhead Elevation: **Ground Level:**

Wellbore ОН Magnetics **Model Name** Sample Date Declination Dip Angle Field Strength (nT) (°) 52,385 IGRF2010 65.88 10/27/2010 11.16

PLAN #1 Design **Audit Notes:** PLAN 0.00 Version: Phase: Tie On Depth: +N/-S Vertical Section: Depth From (TVD) +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 41.84

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,065.21	15.30	41.84	1,056.14	75.69	67.76	2.00	2.00	0.00	41.84	
2,825.34	15.30	41.84	2,753.86	421.82	377.64	0.00	0.00	0.00	0.00	
3,590.55	0.00	0.00	3,510.00	497.51	445.40	2.00	-2.00	0.00	180.00	
9,860.55	0.00	0.00	9,780.00	497.51	445.40	0.00	0.00	0.00	0.00	NBU 921-35C4CS_PI



Company:

SDIPlanning Report - Geographic



Database: EDM5000-RobertS-Local

Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12

 Site:
 NBU 921-35F2 Pad

 Well:
 NBU 921-35C4CS

Wellbore: OH
Design: PLAN #1

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference: Survey Calculation Method: Well NBU 921-35C4CS GL 5105' & KB 14' @ 5119.00ft (ASSUMED)

@ 5119.00ff (ASSUMED) GL 5105' & KB 14' @ 5119.00ff (ASSUMED)

True

ned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	14,527,724.04	2,054,497.65	39° 59' 42.655 N	109° 31' 17.688
100.00	0.00	0.00	100.00	0.00	0.00	14,527,724.04	2,054,497.65	39° 59' 42.655 N	109° 31' 17.688
200.00	0.00	0.00	200.00	0.00	0.00	14,527,724.04	2,054,497.65	39° 59' 42.655 N	109° 31' 17.688
300.00	0.00	0.00	300.00	0.00	0.00	14,527,724.04	2,054,497.65	39° 59' 42.655 N	109° 31' 17.688
Start Bui						,- ,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
400.00	2.00	41.84	399.98	1.30	1.16	14,527,725.36	2,054,498.79	39° 59' 42.668 N	109° 31' 17.673
500.00	4.00	41.84	499.84	5.20	4.65	14,527,729.31	2,054,502.22	39° 59' 42.707 N	109° 31' 17.628
600.00	6.00	41.84	599.45	11.69	10.47	14,527,735.90	2,054,507.92	39° 59' 42.771 N	109° 31' 17.553
700.00	8.00	41.84	698.70	20.77	18.60	14,527,745.11	2,054,515.90	39° 59' 42.861 N	109° 31' 17.449
800.00	10.00	41.84	797.47	32.43	29.03	14,527,756.94	2,054,526.14	39° 59' 42.976 N	109° 31' 17.31
900.00	12.00	41.84	895.62	46.64	41.76	14,527,771.37	2,054,538.62	39° 59' 43.116 N	109° 31' 17.15
1,000.00	14.00	41.84	993.06	63.40	56.76	14,527,788.37	2,054,553.35	39° 59' 43.282 N	109° 31' 16.95
1,065.21	15.30	41.84	1,056.14	75.69	67.76	14,527,800.84	2,054,564.15	39° 59' 43.403 N	109° 31' 16.81
Start 176	0.13 hold at 1	065.21 MD							
1,100.00	15.30	41.84	1,089.70	82.53	73.89	14,527,807.78	2,054,570.16	39° 59' 43.471 N	109° 31' 16.73
1,200.00	15.30	41.84	1,186.15	102.20	91.49	14,527,827.74	2,054,587.43	39° 59' 43.665 N	109° 31' 16.51
1,300.00	15.30	41.84	1,282.61	121.86	109.10	14,527,847.69	2,054,604.71	39° 59' 43.860 N	109° 31' 16.28
1,400.00	15.30	41.84	1,379.06	141.53	126.70	14,527,867.65	2,054,621.99	39° 59' 44.054 N	109° 31' 16.06
1,500.00	15.30	41.84	1,475.51	161.19	144.31	14,527,887.60	2,054,639.26	39° 59' 44.248 N	109° 31' 15.83
1,552.34	15.30	41.84	1,526.00	171.48	153.52	14,527,898.04	2,054,648.31	39° 59' 44.350 N	109° 31' 15.71
GREEN F	RIVER								
1,600.00	15.30	41.84	1,571.97	180.86	161.91	14,527,907.55	2,054,656.54	39° 59' 44.443 N	109° 31' 15.60
1,700.00	15.30	41.84	1,668.42	200.52	179.52	14,527,927.51	2,054,673.82	39° 59' 44.637 N	109° 31' 15.38
1,800.00	15.30	41.84	1,764.88	220.19	197.13	14,527,947.46	2,054,691.09	39° 59' 44.832 N	109° 31' 15.15
1,900.00	15.30	41.84	1,861.33	239.85	214.73	14,527,967.42	2,054,708.37	39° 59' 45.026 N	109° 31' 14.92
2,000.00	15.30	41.84	1,957.78	259.52	232.34	14,527,987.37	2,054,725.65	39° 59' 45.220 N	109° 31' 14.70
2,100.00	15.30	41.84	2,054.24	279.18	249.94	14,528,007.33	2,054,742.92	39° 59' 45.415 N	109° 31' 14.47
2,200.00	15.30	41.84	2,150.69	298.85	267.55	14,528,027.28	2,054,760.20	39° 59' 45.609 N	109° 31' 14.25
2,300.00	15.30	41.84	2,247.15	318.51	285.15	14,528,047.23	2,054,777.48	39° 59' 45.804 N	109° 31' 14.02
2,400.00	15.30	41.84	2,343.60	338.18	302.76	14,528,067.19	2,054,794.75	39° 59' 45.998 N	109° 31' 13.79
2,500.00	15.30	41.84	2,440.05	357.84	320.36	14,528,087.14	2,054,812.03	39° 59' 46.192 N	109° 31' 13.57
2,600.00	15.30	41.84	2,536.51	377.51	337.97	14,528,107.10	2,054,829.31	39° 59' 46.387 N	109° 31' 13.34
2,700.00	15.30	41.84	2,632.96	397.17	355.57	14,528,127.05	2,054,846.58	39° 59' 46.581 N	109° 31' 13.11
2,718.70	15.30	41.84	2,651.00	400.85	358.87	14,528,130.78	2,054,849.82	39° 59' 46.617 N	109° 31' 13.07
8 5/8"									
2,800.00	15.30	41.84	2,729.41	416.84	373.18	14,528,147.00	2,054,863.86	39° 59' 46.775 N	109° 31' 12.89
2,825.34	15.30	41.84	2,753.86	421.82	377.64	14,528,152.06	2,054,868.24	39° 59' 46.825 N	109° 31' 12.83
Start Dro	•								
2,900.00	13.81	41.84	2,826.12	435.80	390.16	14,528,166.25	2,054,880.52	39° 59' 46.963 N	109° 31' 12.67
3,000.00	11.81	41.84	2,923.62	452.32	404.95	14,528,183.01	2,054,895.04	39° 59' 47.126 N	109° 31' 12.48
3,100.00	9.81	41.84	3,021.84	466.29	417.46	14,528,197.19	2,054,907.31	39° 59' 47.264 N	109° 31' 12.32
3,200.00	7.81	41.84	3,120.66	477.71	427.67	14,528,208.77	2,054,917.34	39° 59' 47.377 N	109° 31' 12.19
3,300.00	5.81	41.84	3,219.95	486.54	435.58	14,528,217.74	2,054,925.10	39° 59' 47.464 N	109° 31' 12.09
3,400.00	3.81	41.84	3,319.59	492.79	441.18	14,528,224.08	2,054,930.59	39° 59' 47.526 N	109° 31' 12.01
3,500.00	1.81	41.84	3,419.46	496.44	444.45	14,528,227.78	2,054,933.80	39° 59' 47.562 N	109° 31' 11.97
3,590.55	0.00	0.00	3,510.00	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.96
	0.00 hold at 3		2 540 45	407.54	AAE 40	14 500 000 00	2.054.024.74	20° 50' 47 570 N	1000 241 44 00
3,600.00	0.00	0.00	3,519.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.96
3,700.00	0.00	0.00	3,619.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.96
3,800.00	0.00	0.00	3,719.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.96
3,900.00	0.00	0.00	3,819.45	497.51	445.40	14,528,228.86 14,528,228.86	2,054,934.74 2,054,934.74	39° 59' 47.573 N 39° 59' 47.573 N	109° 31' 11.96



SDIPlanning Report - Geographic



Database: EDM5000-RobertS-Local

Company: Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12

 Site:
 NBU 921-35F2 Pad

 Well:
 NBU 921-35C4CS

Wellbore: OH
Design: PLAN #1

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference: Survey Calculation Method: Well NBU 921-35C4CS GL 5105' & KB 14' @ 5119.00ft (ASSUMED)

GL 5105' & KB 14' @ 5119.00ft (ASSUMED)

True

Planned Survey	,								
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,100.00	0.00	0.00	4,019.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
4,200.00	0.00	0.00	4,119.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
4,300.00	0.00	0.00	4,219.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
4,400.00	0.00	0.00	4,319.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
4,500.00		0.00	4,419.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
4,600.00	0.00	0.00	4,519.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
4,700.00	0.00	0.00	4,619.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
4,800.00	0.00	0.00	4,719.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
4,881.55	0.00	0.00	4,801.00	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
WASATO									
4,900.00	0.00	0.00	4,819.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
5,000.00	0.00	0.00	4,919.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
5,100.00	0.00	0.00	5,019.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
5,200.00	0.00	0.00	5,119.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
5,300.00	0.00	0.00	5,219.45	497.51 497.51	445.40 445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
5,400.00 5,500.00	0.00	0.00 0.00	5,319.45 5,419.45	497.51	445.40 445.40	14,528,228.86 14,528,228.86	2,054,934.74 2,054,934.74	39° 59' 47.573 N 39° 59' 47.573 N	109° 31' 11.964 W 109° 31' 11.964 W
5,600.00	0.00	0.00	5,519.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
5,700.00	0.00	0.00	5,619.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
5,800.00	0.00	0.00	5,719.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
5,900.00	0.00	0.00	5,819.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
6,000.00	0.00	0.00	5,919.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
6,100.00	0.00	0.00	6,019.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
6,200.00	0.00	0.00	6,119.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
6,300.00	0.00	0.00	6,219.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
6,400.00	0.00	0.00	6,319.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
6,500.00	0.00	0.00	6,419.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
6,600.00	0.00	0.00	6,519.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
6,700.00	0.00	0.00	6,619.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
6,800.00	0.00	0.00	6,719.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
6,900.00	0.00	0.00	6,819.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
7,000.00	0.00	0.00	6,919.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
7,100.00	0.00	0.00	7,019.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
7,200.00	0.00	0.00	7,119.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
7,300.00	0.00	0.00	7,219.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
7,400.00	0.00	0.00	7,319.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
7,500.00	0.00	0.00	7,419.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
7,589.55	0.00	0.00	7,509.00	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
			OP OF CYLIND						
7,600.00		0.00	7,519.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
7,700.00		0.00	7,619.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
7,800.00		0.00	7,719.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
7,900.00		0.00	7,819.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
8,000.00	0.00	0.00	7,919.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
8,100.00	0.00	0.00	8,019.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
8,200.00	0.00	0.00	8,119.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
8,300.00	0.00	0.00	8,219.45 8,310.45	497.51 497.51	445.40 445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
8,400.00	0.00	0.00 0.00	8,319.45 8 410 45	497.51 497.51	445.40 445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W 109° 31' 11.964 W
8,500.00	0.00	0.00	8,419.45 8 510 45	497.51 497.51	445.40 445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
8,600.00 8,700.00	0.00	0.00	8,519.45 8,619.45	497.51 497.51	445.40 445.40	14,528,228.86 14,528,228.86	2,054,934.74 2,054,934.74	39° 59' 47.573 N 39° 59' 47.573 N	109 31 11.964 W
8,800.00	0.00	0.00	8,719.45	497.51	445.40 445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
3,000.00	0.00	0.00	0,113.40	+31.31	770.40	17,020,220.00	۷,007,304.14	00 00 +1.010 N	100 01 11.804 W



SDI Planning Report - Geographic



EDM5000-RobertS-Local Database:

Company: Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12

NBU 921-35F2 Pad Site: Well: NBU 921-35C4CS

Wellbore: ОН Design: PLAN #1 Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference: **Survey Calculation Method:**

GL 5105' & KB 14' @ 5119.00ft (ASSUMED) GL 5105' & KB 14'

@ 5119.00ft (ASSUMED) True

Well NBU 921-35C4CS

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
8,900.00	0.00	0.00	8,819.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
9,000.00	0.00	0.00	8,919.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
9,100.00	0.00	0.00	9,019.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
9,200.00	0.00	0.00	9,119.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
9,300.00	0.00	0.00	9,219.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
9,400.00	0.00	0.00	9,319.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
9,500.00	0.00	0.00	9,419.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
9,600.00	0.00	0.00	9,519.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
9,700.00	0.00	0.00	9,619.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
9,800.00	0.00	0.00	9,719.45	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
9,860.55	0.00	0.00	9,780.00	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
NBU 921	-35C4CS_PB	HL							

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
NBU 921-35C4CS TOP - plan hits target cent - Point	0.00 ter	0.00	7,509.00	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W
NBU 921-35C4CS_PBH - plan hits target cent - Circle (radius 25.00		0.00	9,780.00	497.51	445.40	14,528,228.86	2,054,934.74	39° 59' 47.573 N	109° 31' 11.964 W

Casing Points						
	Measured Depth	Vertical Depth		Casing Diameter	Hole Diameter	
	(ft)	(ft)	Name	(in)	(in)	
	2,718.70	2,651.00 8 5/8"		8.625	11.000	

Formations							
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
	1,552.34	1,526.00	GREEN RIVER				
	4,881.55	4,801.00	WASATCH				
	7,589.55	7,509.00	MESAVERDE				



Company:

SDIPlanning Report - Geographic



Database: EDM5000-RobertS-Local

Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12

 Site:
 NBU 921-35F2 Pad

 Well:
 NBU 921-35C4CS

Wellbore: OH
Design: PLAN #1

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Well NBU 921-35C4CS

GL 5105' & KB 14'

@ 5119.00ft (ASSUMED)

GL 5105' & KB 14' @ 5119.00ft (ASSUMED)

True

Plan Annotations				
Measured	Vertical	Local Coor	dinates	
Depth	Depth	+N/-S	+E/-W	O
(ft)	(ft)	(ft)	(ft)	Comment
300.00	300.00	0.00	0.00	Start Build 2.00
1,065.21	1,056.14	75.69	67.76	Start 1760.13 hold at 1065.21 MD
2,825.34	2,753.86	421.82	377.64	Start Drop -2.00
3,590.55	3,510.00	497.51	445.40	Start 6270.00 hold at 3590.55 MD
9,860.55	9,780.00	497.51	445.40	TD at 9860.55

NBU 921-35C4CS

Surface: 1,686' FNL 1,699' FWL (SE/4NW/4) BHL: 1,187' FNL 2,148' FWL (NE/4NW/4)

NBU 921-35F1BS

Surface: 1,684' FNL 1,709' FWL (SE/4NW/4) BHL: 1,531' FNL 2,146' FWL (SE/4NW/4)

NBU 921-35E2AS

Surface: 1,688' FNL 1,689' FWL (SE/4NW/4) BHL: 1,498' FNL 535' FWL (SW/4NW/4)

NBU 921-35E1CS

Surface: 1,691' FNL 1,679' FWL (SE/4NW/4) BHL: 1,933' FNL 826' FWL (SW/4NW/4)

> Pad: NBU 921-35F2 Section 35 T9S R21E Mineral Lease: UO 01194 ST

Uintah County, Utah Operator: Kerr-McGee Oil & Gas Onshore LP

MULTI-POINT SURFACE USE PLAN of OPERATIONS (SUPO)

This SUPO contains surface operating procedures for Kerr-McGee Oil & Gas Onshore LP (KMG), a wholly owned subsidiary of Anadarko Petroleum Corporation (APC) pertaining to actions that involve the State of Utah School and Institutional Trust Lands Administration (SITLA) in the development of minerals leased to APC/KMG (including, but not limited to, APDs/SULAs/ROEs/ROWs and/or easements).

See associated Utah Division of Oil, Gas, and Mining (UDOGM) Form 3(s), plats, maps, and other attachments for site-specific information on projects represented herein.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

A. <u>Existing Roads</u>:

Existing roads consist of county roads and improved/unimproved lease roads. APC/KMG will maintain existing roads in a condition that is the same as or better than before operations began and in a safe and usable condition. Maintenance of existing roads will continue until final abandonment and reclamation of well pads and/or other facilities. The road maintenance may include, but is not limited to, blading, ditching, culvert installation/cleanout, surfacing, and dust control.

Typically, roads, gathering lines and electrical distribution lines will occupy common disturbance corridors and roadways will be used as working space. All disturbances located in the same corridor will overlap each

other to the maximum extent possible; in no case will the maximum disturbance width of the access road and utility corridors exceed 50', unless otherwise approved.

B. Planned Access Roads:

No new road is proposed (see Topo Map B). Applicable Uintah County encroachment and/or pipeline crossing permits will be obtained prior to construction/development. No other pipelines will be crossed at this location.

Where roads are new or to be reconstructed, they will be located, designed, and maintained to meet the standards of SITLA and other commonly accepted Best Management Practices (BMPs). If a new road/corridor were to cross a water of the United States, KMG will adhere to the requirements of applicable Nationwide or Individual Permits of the Department of Army Corps of Engineers.

Turnouts; major cut and fills; culverts; bridges; gates; cattle guards; low water crossings; or modifications needed to existing infrastructure/facilities were determined at the on-site and, as applicable, are typically shown on attached Exhibits and Topo maps.

C. <u>Location of Existing and Proposed Facilities</u>:

This pad will expand the existing pad for the NBU 443. This well location is a vertical producing well according to Utah Division of Oil, Gas and Mining (UDOGM) records as of November 11, 2010.

Production facilities (see Well Pad Design Summary and Facilities Diagram):

Production facilities will be installed on the disturbed portion of each well pad and may include bermed components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will be constructed of compacted subsoil or corrugated metal, impervious, designed to hold 110% of the capacity of the largest tank, and be independent of the back cut. All permanent (on-site six months or longer) aboveground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with SITLA.

Production tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids and to prevent livestock or wildlife entry. The tanks are not to be used for disposal of liquids from additional sources without prior approval of UDOGM. Gathering facilities:

The following pipeline transmission facilities will apply if the well is productive (see Topo D):

The total gas gathering (steel line pipe with fusion bond epoxy coating) pipeline distances from the meter to the tie in point is $\pm 1,290$ ' and the individual segments are broken up as follows:

 ± 660 ' (0.1 miles) –New 6" buried gas pipeline from the meter to the edge of the pad.

±630' (0.1 miles) –New 6" buried gas pipeline from the edge of pad to the NBU 921-35F4 pad intersection.

The total liquid gathering pipeline distance from the separator to the tie in point is $\pm 1,290$ ' and the individual segments are broken up as follows:

 ± 660 ' (0.1 miles) –New 6" buried liquid pipeline from the separator to the edge of the pad. ± 630 ' (0.1 miles) –New 6" buried liquid pipeline from the edge of pad to the NBU 921-35F4 pad intersection.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

The proposed pipelines will be buried and will include gas gathering and liquid gathering pipelines in the same trench. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. Kerr-McGee requests a permanent 30' right-of-way adjacent to the road for life-of-project for maintenance, repairs, and/or upgrades, no additional right-of-way will be needed beyond the 30'. Where the pipeline is not adjacent to the road or well pad, Kerr-McGee requests a temporary 45' construction right-of-way and 30' permanent right-of-way.

The proposed trench width for the pipeline would range from 18-48 inches and will be excavated to a depth of 48 to 60 inches of normal soil cover or 24 inches of cover in consolidated rock. During construction blasting may occur along the proposed right-of-way where trenching equipment cannot cut into the bedrock. Large debris and rocks removed from the earth during trenching and blasting that could not be returned to the trench would be distributed evenly and naturally in the project area. The proposed pipelines will be pressure tested pneumatically (depending on size) or with fluids (either fresh or produced). If fluids are used, there will be no discharge to the surface.

Pipeline signs will be installed along the right-of-way to indicate the pipeline proximity, ownership, and to provide emergency contact phone numbers. Above ground valves, T's, and/or cathodic protection will be installed at various locations for connection, corrosion prevention and/or for safety purposes.

D. <u>Location and Type of Water Supply</u>:

Water for drilling purposes will be obtained from one of the following sources:

- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

Water will be hauled to location over the roads marked on Maps A and B. No water well is to be drilled on this lease.

E. Source of Construction Materials:

Construction operations will typically be completed with native materials found on location. If needed, construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source and described in subsequent Sundry requests. No construction materials will be removed from State lands without prior approval from SITLA.

F. <u>Methods of Handling Waste Materials</u>:

Should the well be productive, produced water will be contained in a water tank and will be transported by pipeline and/or truck to an approved disposal sites facilities and/or Salt Water Disposal (SWD) injection well. Currently, those facilities are:

RNI in Sec. 5 T9S R22E

Ace Oilfield in Sec. 2 T6S R20E MC&MC in Sec. 12 T6S R19E

Pipeline Facility in Sec. 36 T9S R20E

Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E

Bonanza Evaporation Pond in Sec. 2 T10S R23E

Ouray #1 SWD in Sec. 1 T9S R21E NBU 159 SWD in Sec. 35 T9S R21E CIGE 112D SWD in Sec. 19 T9S R21E

CIGE 112D SWD in Sec. 19 198 R21E CIGE 114 SWD in Sec. 34 T9S R21E NBU 921-34K SWD in Sec. 34 T9S R21E NBU 921-33F SWD in Sec. 33 T9S R21E

NBU 921-34L SWD in Sec. 34 T9S R21E

Drill cuttings and/or fluids will be contained in the reserve/frac pit. Cuttings will be buried in pit(s) upon closure. Unless otherwise approved, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

Pits will be constructed to minimize the accumulation of surface runoff. Should fluid hydrocarbons be encountered during drilling, completions or well testing, product will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be released into a pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by SITLA. Should timely removal prove infeasible, the pit will be netted with mesh no larger than 1 inch until such time as hydrocarbons can be removed. Hydrocarbon removal will also take place prior to the closure of the pit, unless authorization is provided for disposal via alternative pit closure methods (e.g. solidification).

The reserve and/or fracture stimulation pit will be lined with a synthetic material 20-mil or thicker, The liner

will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. Any additional pits necessary to subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

For the protection of livestock and wildlife, all open pits and cellars will be fenced/covered to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after six (6) months from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Additional drying methods may include fly-ash solidification or sprinkler evaporation. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift. Reserve pit liners will be cut off or folded as near to the mud surface as possible and as safety considerations allow and buried on location.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Any undesirable event, accidental release, or in excess of reportable quantities will be managed according to the notification requirements of UDOGMs "Reporting Oil and Gas Undesirable Events" rule, and, where State wells are participatory to a Federal agreement, according to NTL-3A.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities and may be kept in limited quantities on drilling sites and well locations for short periods of time during drilling or completion activities.

G. Ancillary Facilities:

None are anticipated.

H. Well Site Layout (see Well Pad Design Summary):

The location, orientation and aerial extent of each drill pad; reserve/completion/flare pit; access road ingress/egress points, drilling rig, dikes/ditches, existing wells/infrastructure; proposed cuts and fills; and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment and facility layout; however, the area of disturbance, as described in the survey, will not be exceeded.

Coordinates are provided in the National Spatial Reference System, North American Datum, 1983 (NAD83) or latest edition. Distances are depicted on each plat to the nearest two adjacent section lines.

I. Plans for Reclamation of the Surface:

Surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. This reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but are not limited to: re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation includes pit closure, re-contouring (where possible), soil bed preparation, topsoil placement, seeding, and/or weed control.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left "rough" after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit.

Final Reclamation

Final reclamation will be performed for newly drilled unproductive wells and/or at the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by APC/KMG. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring, final grading will be conducted over the entire surface of the well site and access road. Where practical, the area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers and surface materials will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep perpendicular to the natural flow of water.

All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to UDOGM.

Seeding and Measures Common to Interim and Final Reclamation

Reclaimed areas may be fenced to exclude grazing and encourage re-vegetation.

On slopes where severe erosion can become a problem and the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. The slope will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to, erosion control blankets and bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage.

Seeding will occur year-round as conditions allow. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-

vegetation. The site specific seed mix will be provided by SITLA.

J. <u>Surface/Mineral Ownership</u>:

SITLA 675 East 500 South, Suite 500 Salt Lake City, UT 84102

K. Other Information:

None

M. <u>Lessee's or Operators' Representative & Certification</u>:

Danielle Piernot Regulatory Analyst I Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6156 Tommy Thompson General Manager, Drilling Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage for State lease activities is provided by State Surety Bond 22013542, and for applicable Federal lease activities and pursuant to 43 CFR 3104, by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Danielle Piernot

November 19, 2010

Date



Kerr-McGee Oil & Gas Onshore LP PO Box 173779 DENVER, CO 80217-3779

October 25, 2010

Ms. Diana Mason Division of Oil, Gas and Mining P.O. Box 145801 Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11

NBU 921-35C4CS

T9S-R21E

Section 35: SENW (Surf), NENW (Bottom)

Surface: 1686' FNL, 1699' FWL Bottom Hole: 1187' FNL, 2148' FWL

Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling.

- Kerr-McGee's NBU 921-35C4CS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Therefore, based on the above stated information, Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Joe Matney

Sr. Staff Landman

Joe Matines

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

November 19, 2010

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2010 Plan of Development Natural Buttes Unit

Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2010 within the Natural Buttes Unit, Uintah County, Utah.

API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

NBU 921-35A Pad

43-047-51339 NBU 921-35A1BS Sec 35 T09S R21E 0522 FNL 0455 FEL BHL Sec 35 T09S R21E 0327 FNL 0499 FEL 43-047-51340 NBU 921-35A4CS Sec 35 T09S R21E 0524 FNL 0445 FEL BHL Sec 35 T09S R21E 1079 FNL 0494 FEL 43-047-51341 NBU 921-35B1BS Sec 35 T09S R21E 0518 FNL 0474 FEL BHL Sec 35 T09S R21E 0257 FNL 1813 FEL 43-047-51342 NBU 921-35B4BS Sec 35 T09S R21E 0520 FNL 0464 FEL BHL Sec 35 T09S R21E 0916 FNL 1817 FEL NBU 921-35B Pad 43-047-51343 NBU 921-35B1CS Sec 35 T09S R21E 0468 FNL 2339 FEL BHL Sec 35 T09S R21E 0582 FNL 1816 FEL 43-047-51344 NBU 921-35B4CS Sec 35 T09S R21E 0488 FNL 2340 FEL BHL Sec 35 T09S R21E 1249 FNL 1818 FEL 43-047-51345 NBU 921-35C1BS Sec 35 T09S R21E 0458 FNL 2338 FEL BHL Sec 35 T09S R21E 0207 FNL 2154 FWL 43-047-51346 NBU 921-35C4BS Sec 35 T09S R21E 0478 FNL 2339 FEL BHL Sec 35 T09S R21E 0860 FNL 2144 FWL API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

NBU 921-35C Pad

43-047-51347 NBU 921-35C1CS Sec 35 T09S R21E 0399 FNL 1591 FWL BHL Sec 35 T09S R21E 0522 FNL 2147 FWL 43-047-51348 NBU 921-35D1BS Sec 35 T09S R21E 0389 FNL 1592 FWL BHL Sec 35 T09S R21E 0089 FNL 0831 FWL 43-047-51349 NBU 921-35D1CS Sec 35 T09S R21E 0409 FNL 1589 FWL BHL Sec 35 T09S R21E 0488 FNL 0823 FWL 43-047-51350 NBU 921-35D4CS Sec 35 T09S R21E 0418 FNL 1588 FWL BHL Sec 35 T09S R21E 1182 FNL 0818 FWL

NBU 921-35F2 Pad

43-047-51351 NBU 921-35C4CS Sec 35 T09S R21E 1686 FNL 1699 FWL BHL Sec 35 T09S R21E 1187 FNL 2148 FWL 43-047-51352 NBU 921-35E1CS Sec 35 T09S R21E 1691 FNL 1679 FWL BHL Sec 35 T09S R21E 1933 FNL 0826 FWL 43-047-51353 NBU 921-35E2AS Sec 35 T09S R21E 1688 FNL 1689 FWL BHL Sec 35 T09S R21E 1498 FNL 0535 FWL

This office has no objection to permitting the wells at this time.

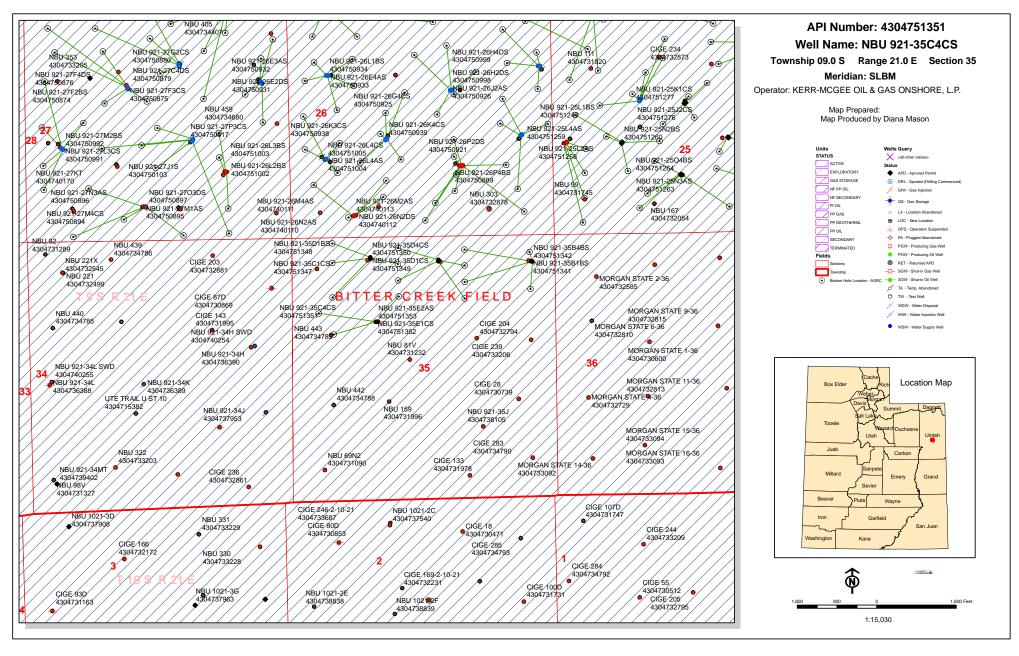
Michael L. Coulthard

Digitally signed by Michael L. Coulthard

DN: cn=Michael L. Coulthard, o=Bureau of Land Management,
ou=Branch of Minerals, email=Michael_Coulthard@blm.gov, c=US Date: 2010.11.19 09:52:13 -07'00'

bcc: File - Natural Buttes Unit Division of Oil Gas and Mining Central Files Agr. Sec. Chron Fluid Chron

MCoulthard:mc:11-19-10



From: Jim Davis

To: Bonner, Ed; Hill, Brad; Mason, Diana

CC: Curry, Kristine; Danielle Piernot; Garrison, LaVonne; Hayden, Martha;...

Date: 12/22/2010 5:49 AM

Subject: Kerr McGee APD approvals in 9S 21E Sec 35 **Attachments:** KMG approvals 921-35 on 12.22.2010.xls

The following wells have been approved by SITLA under the following arch and paleo stipulations. This is a long list, so I'm attaching a spreadsheet with the same information.

A note on arch and paleo stipulations: Wells that have an arch note "non-significant site" do not need to be avoided or mitigated. Only those that say "needs to be avoided".

The paleo reports make recommendations for "spot paleo monitoring" or "full paleo monitoring". It is my understanding that Kerr McGee is taking these stipulations and doing full monitoring in either case, in an abundance of caution.

-Jim Davis

Well Name	API	Paleo Stip	ulations	Arch Stipu	ulations				
Kerr-McGee's N	BU 921	1-35A1BS	API	#4304751339	IPC	10-98	Spot Paleo	Monitoring	J
(U-07-MQ-1437	b,i,p,s)						-		
Kerr-McGee's N	BU 921	1-35A4CS	API	#4304751340	IPC	10-98	Spot Paleo	Monitoring	J
(U-07-MQ-1437	b,i,p,s)						•	_	
Kerr-McGee's N		1-35B1BS	API	#4304751341	IPC	10-98	Spot Paleo	Monitoring	J
(U-07-MQ-1437									
Kerr-McGee's N		1-35B4BS	API	#4304751342	IPC	10-98	Spot Paleo	Monitoring	J
(U-07-MQ-1437									
Kerr-McGee's N				#4304751343			Spot Paleo		
(U-07-MQ-1437	b,i,p,s;	eligible site	42Un646	1, just south of					
Kerr-McGee's N				#4304751344			Spot Paleo		
(U-07-MQ-1437									
Kerr-McGee's N	BU 921	1-35C1BS	API	#4304751345	IPC	10-98	Spot Paleo	Monitoring	J
(U-07-MQ-1437	b,i,p,s;	eligible site	42Un646	1, just south of					
Kerr-McGee's N				#4304751346			Spot Paleo		
(U-07-MQ-1437	b,i,p,s;	eligible site	42Un646	1, just south of					
Kerr-McGee's N	BU 921	1-35C1CS	API	#4304751347	IPC	10-97	Full Paleo I	Monitoring	(U-07-
MQ-1437b,i,p,s									
Kerr-McGee's N		1-35D1BS	API	#4304751348	IPC	10-97	Full Paleo I	Monitoring	(U-07-
MQ-1437b,i,p,s)								
Kerr-McGee's N	BU 921	1-35D1CS	API	#4304751349	IPC	10-97	Full Paleo I	Monitoring	(U-07-
MQ-1437b,i,p,s									
Kerr-McGee's N		1-35D4CS	API	#4304751350	IPC	10-97	Full Paleo I	Monitoring	(U-07-
MQ-1437b,i,p,s									
Kerr-McGee's N		1-35C4CS	API	#4304751351	IPC	10-97	Full Paleo I	Monitoring	(U-07-
MQ-1437b,i,p,s									
Kerr-McGee's N		1-35E1CS	API	#4304751352	IPC	10-97	Full Paleo I	Monitoring	(U-07-
MQ-1437b,i,p,s									
Kerr-McGee's N		1-35E2AS	API	#4304751353	IPC	10-97	Full Paleo I	Monitoring	(U-07-
MQ-1437b,i,p,s									
Kerr-McGee's N		1-35F1BS	API	#4304751355	IPC	10-97	Full Paleo I	Monitoring	(U-07-
MQ-1437b,i,p,s									
Kerr-McGee's N		1-35F4BS	API	#4304751356	IPC	10-97	Full Paleo I	Monitoring	(U-07-
MQ-1437b,i,p,s									
Kerr-McGee's N		1-35F4CS	API	#4304751357	IPC	10-97	Full Paleo I	Monitoring	(U-07-
MQ-1437b,i,p,s					15.0				// L 0=
Kerr-McGee's N	BU 921	1-35K1BS	API	#4304751358	IPC	10-97	Full Paleo I	Monitoring	(U-07-

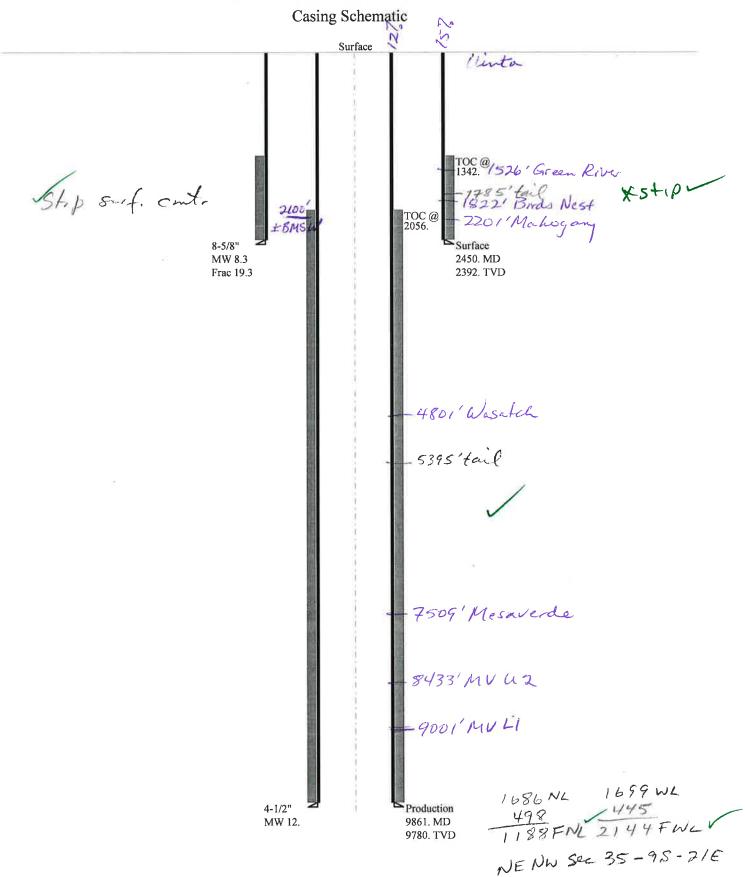
110 (10=1)		
MQ-1437b,i,p,s)	. =	
Kerr-McGee's NBU 921-35K1CS	API #4304751359	IPC 10-97 Full Paleo Monitoring (U-07-
MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35G1BS	API #4304751360	IPC 10-98 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s; 1 non-significant	site, 42Un2395, adjacer	
Kerr-McGee's NBU 921-35G1CS	API #4304751361	IPC 10-98 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s; 1 non-significant	site, 42Un2395, adjacer	nt to the road)
Kerr-McGee's NBU 921-35G4BS	API #4304751362	IPC 10-98 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s; 1 non-significant		
	API #4304751363	IPC 10-98 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s; 1 non-significant		,
Kerr-McGee's NBU 921-35J1S API #43		0-98 Spot Paleo Monitoring (U-07-
MQ-1437b,i,p,s; 1 non-significant site, 4		
Kerr-McGee's NBU 921-35H1BS	API #4304751365	IPC 10-98 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)	AFT#4304751305	IFC 10-96 Spot Faled Monitoring
	ADI #42047E4266	IDC 10.00 Cnot Doloo Manitoring
Kerr-McGee's NBU 921-35H1CS	API #4304751366	IPC 10-98 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)	A DI #400 4754007	IDO 40 00 Oct Delec Machini
Kerr-McGee's NBU 921-35H4BS	API #4304751367	IPC 10-98 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35H4CS	API #4304751368	IPC 10-98 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35I1BS API #43	304751369 IPC 10	0-100 Full Paleo Monitoring (U-07-
MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35I1CS	API #4304751370	IPC 10-100 Full Paleo Monitoring
(U-07-MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35I4BS API #43	304751371 IPC 10	0-100 Full Paleo Monitoring (U-07-
MQ-1437b,i,p,s)		•
Kerr-McGee's NBU 921-35I4CS	API #4304751372	IPC 10-100 Full Paleo Monitoring
(U-07-MQ-1437b,i,p,s)		3
Kerr-McGee's NBU 921-35J1CS	API #4304751373	IPC 10-98 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)		ii e ie ee eperi alee meillemig
Kerr-McGee's NBU 921-35J4BS	API #4304751374	IPC 10-100 Full Paleo Monitoring
(U-07-MQ-1437b,i,p,s)	A 1 # 4304/3/3/4	ii o to toot dii t alco Monitoring
Kerr-McGee's NBU 921-35K4BS	API #4304751375	IPC 10-99 Spot Paleo Monitoring
	AFT#4304751375	IFC 10-99 Spot Faled Monitoring
(U-07-MQ-1437b,i,p,s) Kerr-McGee's NBU 921-35K4CS	API #4304751376	IPC 10-99 Spot Paleo Monitoring
	API #4304751376	IPC 10-99 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)	A DI #400 4754077	IDC 40 00 Coat Dalas Manitaria
Kerr-McGee's NBU 921-35N1BS	API #4304751377	IPC 10-99 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)	A DI #400 475 4070	IDO 40 00 0 4 D 1 14 15 1
Kerr-McGee's NBU 921-35N1CS	API #4304751378	IPC 10-99 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35E4CS	API #4304751379	IPC 10-99 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35P4CS	API #4304751380	IPC 10-100 Full Paleo Monitoring
(U-07-MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35P1CS	API #4304751381	IPC 10-100 Full Paleo Monitoring
(U-07-MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35P1BS	API #4304751382	IPC 10-100 Full Paleo Monitoring
(U-07-MQ-1437b,i,p,s)		Ç
Kerr-McGee's NBU 921-35O4CS	API #4304751383	IPC 10-100 Full Paleo Monitoring
(U-07-MQ-1437b,i,p,s; 1 non-significant		
Kerr-McGee's NBU 921-35O4BS	API #4304751384	IPC 10-100 Full Paleo Monitoring
(U-07-MQ-1437b,i,p,s; 1 non-significant		
Kerr-McGee's NBU 921-3501CS	API #4304751385	IPC 10-100 Full Paleo Monitoring
(U-07-MQ-1437b,i,p,s; 1 non-significant		
Kerr-McGee's NBU 921-35L1BS	API #4304751386	IPC 10-99 Spot Paleo Monitoring
1.5.7 MOSSOS 11DO 021 00E1DO	, i 100 TI 0 1000	2 10 00 opor i alco monitoring

(U-07-MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35O1BS	API #4304751387	IPC 10-100 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s; 1 non-significant	site, 42Un1836, adjacer	nt to pipeline)
Kerr-McGee's NBU 921-35N4CS	API #4304751388	IPC 10-100 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s; 1 non-significant	site, 42Un1836, adjacer	
Kerr-McGee's NBU 921-35L1CS	API #4304751389	IPC 10-99 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35L4CS	API #4304751390	IPC 10-99 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35M1BS	API #4304751391	IPC 10-99 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35M1CS	API #4304751392	IPC 10-99 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35M4BS	API #4304751393	IPC 10-99 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35M4CS	API #4304751394	IPC 10-99 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s)		
Kerr-McGee's NBU 921-35N4BS	API #4304751395	IPC 10-100 Spot Paleo Monitoring
(U-07-MQ-1437b,i,p,s; 1 non-significant	site, 42Un1836, adjacer	nt to pipeline)

BOPE REVIEW KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 921-35C4CS 43047513510000

Well Name		KERR-MCGEE O	OIL &	GAS ONSHO	ORE	E, L.P. NBU 921-3	35C4	4CS 430475135
String		Surf	Pr	rod	T		T.	
Casing Size(")		8.625	4.5	.500	1		Ī	
Setting Depth (TVD)		2392	97	780	1		Ī	
Previous Shoe Setting Dept	th (TVD)	40	23	392	1		Ī	
Max Mud Weight (ppg)		8.3	12	2.0	1		Ī	
BOPE Proposed (psi)		500	H	000	1		ľ	
Casing Internal Yield (psi)		3390	77	780	1		ľ	
Operators Max Anticipate	d Pressure (psi)	5966	11		1	i i	Ť	
			11-		_		1.	
Calculations	Sui	rf String				8.0	625	5 "
Max BHP (psi)		.052*Setti	ing	Depth*N	1V	V= 1036		i e e e e e e e e e e e e e e e e e e e
							_	BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)		x BHP-(0.12*		- 1	_	1		NO air drill
MASP (Gas/Mud) (psi)	Ma	ax BHP-(0.22*	*Se	etting Dep	th)= 510		NO .
				~. ~	_			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe		Depth - Previo	ous S	Shoe Dep	th)= 519		NO Reasonable depth in area
Required Casing/BOPE To						2373		psi
*Max Pressure Allowed @	Previous Casing Shoe=				_	40		psi *Assumes 1psi/ft frac gradient
Calculations	Pro	od String				4.5	500	0 "
Max BHP (psi)		.052*Setti	ing	Depth*N	1V	_		
··· ·· ·· ·· ·· ·· ·· ·· ·· ·· ·· ·· ··				11.	_	10100		BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Ma	nx BHP-(0.12*	*Se	etting Dep	th)= 4929		YES
MASP (Gas/Mud) (psi)		x BHP-(0.22*			_	-		YES OK
() (.)		. (**		- 0 I	_	7 0001	_	*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(Setting I	Depth - Previo	ous S	Shoe Dep	th)= 4478		NO Reasonable
Required Casing/BOPE To	est Pressure=					5000		psi
*Max Pressure Allowed @	Previous Casing Shoe=					2392		psi *Assumes 1psi/ft frac gradient
						1		11.
Calculations		String						"
Max BHP (psi)		.052*Setti	ing	Depth*N	1V	V=		i
								BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)		ax BHP-(0.12*				-		NO .
MASP (Gas/Mud) (psi)	Ma	ax BHP-(0.22*	*Se	etting Dep	th)=		NO .
					_			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	<u> </u>	Depth - Previo	ous S	Shoe Dep	th)=		NO
Required Casing/BOPE To						_		psi
*Max Pressure Allowed @	Previous Casing Shoe=					_[]		psi *Assumes 1psi/ft frac gradient
Calculations		String			_		_	III
Max BHP (psi)		.052*Setti	ing	Depth*N	1V	V=		
<u>.</u>			_			J		BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Ma	ax BHP-(0.12*	*Se	etting Dep	th)=		NO
MASP (Gas/Mud) (psi)	Ma	ax BHP-(0.22*	*Se	etting Dep	th)=		NO
						Ti-		*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(Setting Γ	Depth - Previo	ous S	Shoe Dep	th)=		NO NO
Required Casing/BOPE To	est Pressure=							psi
*Max Pressure Allowed @	Previous Casing Shoe=							psi *Assumes 1psi/ft frac gradient

43047513510000 NBU 921-35C4CS



43047513510000 NBU 921-35C4CS Well name:

KERR-MCGEE OIL & GAS ONSHORE, L.P. Operator:

String type: Surface

Project ID: 43-047-51351

Location: **UINTAH** COUNTY

Minimum design factors: **Environment:** Design parameters:

Collapse Collapse: H2S considered? No 74 °F Surface temperature: 1.125 Mud weight: 8.330 ppg Design factor

107 °F Bottom hole temperature: Design is based on evacuated pipe. 1.40 °F/100ft Temperature gradient:

Minimum section length: 100 ft

Burst: Design factor 1.00

Cement top: 1,342 ft

Burst Max anticipated surface

2,156 psi pressure: Internal gradient: 0.120 psi/ft Directional Info - Build & Drop Tension:

1.80 (J) Kick-off point 300 ft Calculated BHP 2,443 psi 8 Round STC: 8 Round LTC: 1.70 (J) Departure at shoe: 467 ft

Maximum dogleg: 2 °/100ft No backup mud specified. Buttress: 1.60 (J) 15.31° 1.50 (J) Inclination at shoe: Premium:

1.50 (B) Re subsequent strings: Body yield: Next setting depth: 9,780 ft

Next mud weight: 12.000 ppg Tension is based on air weight. Neutral point: 2,145 ft Next setting BHP: 6,097 psi Fracture mud wt: 19.250 ppg

2,450 ft Fracture depth: Injection pressure: 2,450 psi

67

Nominal End True Vert Measured Drift Est. Run Segment Seq Length Size Weight Grade **Finish** Depth Depth Diameter Cost (ft) (in) (lbs/ft) (ft) (ft) (in) (\$) 2450 8.625 28.00 I-55 LT&C 2392 2450 7.892 97020 1 **Burst Tension Tension Tension** Collapse Collapse Collapse **Burst** Burst Run Load Strength Design Strength Design Load Strength Design Seq Load **Factor Factor** (kips) (kips) **Factor** (psi) (psi) (psi) (psi)

3390

1.39

2443

Helen Sadik-Macdonald Prepared Div of Oil, Gas & Mining

1880

1.816

Phone: 801 538-5357 FAX: 801-359-3940

Date: December 29,2010 Salt Lake City, Utah

348

5.20 J

Remarks:

1

1035

Collapse is based on a vertical depth of 2392 ft, a mud weight of 8.33 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Well name:

43047513510000 NBU 921-35C4CS

Operator:

KERR-MCGEE OIL & GAS ONSHORE, L.P.

String type:

Project ID:

Production

43-047-51351

Location:

UINTAH

COUNTY

Design parameters: Collapse

Mud weight: Internal fluid density: 12.000 ppg 1.000 ppg Minimum design factors: Collapse:

Design factor 1.125 **Environment:**

H2S considered? Surface temperature: Bottom hole temperature:

No 74 °F 211 °F

Temperature gradient: Minimum section length: 1.40 °F/100ft 100 ft

Burst:

Design factor

1.00 Cement top: 2,056 ft

Burst

Max anticipated surface

pressure: Internal gradient: Calculated BHP

3,945 psi 0.220 psi/ft

6,097 psi

No backup mud specified.

Buttress: Premium:

Body yield:

Tension:

8 Round STC: 8 Round LTC:

1.60 (B) Tension is based on air weight.

Directional Info - Build & Drop 1.80 (J)

Kick-off point Departure at shoe:

300 ft 668 ft

Maximum dogleg: Inclination at shoe: 2 °/100ft 0 °

Neutral point: 8,107 ft

Estimated cost:

128,870 (\$)

1.80 (J)

1.60 (J)

1.50 (J)

Run	Segment		Nominal		End	True Vert	Measured	Drift	Est.
Seq	Length	Size	Weight	Grade	Finish	Depth	Depth	Diameter	Cost
	(ft)	(in)	(lbs/ft)			(ft)	(ft)	(in)	(\$)
2	9700	4.5	11.60	I-80	LT&C	9619	9700	3.875	128040
1	161	4.5	11.60	HCP-110	Buttress	9780	9861	3.875	830
Run	Collapse	Collapse	Collapse	Burst	Burst	Burst	Tension	Tension	Tension
Seq	Load	Strength	Design	Load	Strength	Design	Load	Strength	Design
	(psi)	(psi)	Factor	(psi)	(psi)	Factor	(kips)	(kips)	Factor
2	5497	6348	1.155	6061	7780	1.28	113.5	212	1.87 J
1	5589	8650	1.548	6097	10690	1.75	1.9	367.2	99.99 B

Prepared

Helen Sadik-Macdonald Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

Date: December 29,2010 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 9780 ft, a mud weight of 12 ppg. An internal gradient of .052 psi/ft was used for collapse from TD to Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator KERR-MCGEE OIL & GAS ONSHORE, L.P.

Well Name NBU 921-35C4CS

API Number 43047513510000 APD No 3165 Field/Unit NATURAL BUTTES

Location: 1/4,1/4 SENW **Sec** 35 **Tw** 9.0S **Rng** 21.0E 1686 FNL 1699 FWL

GPS Coord (UTM) 626211 4428059 Surface Owner

Participants

See other comments:

Regional/Local Setting & Topography

The general area is within the Natural Buttes Unit in the lower portion of the Sand Wash Drainage of Uintah, County, approximately 37 air miles and 44.5 road miles south of Vernal, Utah. Access is by State of Utah Highways, Uintah County and existing oilfield development roads. Topography of the Sand Wash area is characterized by broad open flats dissected by numerous sub-drainages, which often become steep with ridges and draws with exposed sandstone layers. No perennial streams occur in the drainage. Individual draws or washes are ephemeral with spring runoff or flows from sometimes-intense summer rainstorms. No springs exist in the area. An occasional constructed pond occurs, furnishing water for antelope or livestock.

The NBU 921-35F2 pad will be enlarged to include four gas wells to be directionally drilled. They are the NBU 921-35F1BS, NBU 921-35C4CS, NBU 921-35E2AS and NBU 921-35E1CS. The pad extends a small existing pad containing the NBU 443 producing gas well in all directions except to the east. Terrain In the area is gentle and rolling. To obtain the needed fill for the enlarged pad the elevation at the well head will be cut. This cut however may be able to be reduced from the planned 3 feet to about 1 ½ feet. No drainages intersect the location and no diversions are needed. A major tributary of Sand Wash is about one mile to the east of the site and the White River about 3 miles down drainage. The selected site appears to be suitable for enlarging a pad, drilling and operating the proposed wells and is the only site in the immediate area.

Both the surface and minerals are owned by SITLA.

Surface Use Plan

Current Surface Use

Grazing Wildlfe Habitat Existing Well Pad

New Road Miles Well Pad Src Const Material Surface Formation

0 Width 352 Length 435 Onsite UNTA

Ancillary Facilities N

Waste Management Plan Adequate?

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

1/5/2011 Page 1

Vegetation is a poor desert shrub type, which includes rabbit brush, Indian ricegrass, horsebrush, stipa commata, greasewood, broom snakeweed, shadscale and halogeton.

Antelope, sheep during the winter, rabbits, coyotes, and small mammals, birds and raptors.

Soil Type and Characteristics

Surface soils are a rocky sandy loam.

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required? N

Berm Required? N

Erosion Sedimentation Control Required? N

Paleo Survey Run? Y Paleo Potental Observed? N Cultural Survey Run? Y Cultural Resources?

Reserve Pit

Site-Specific Factors	Site R	anking	
Distance to Groundwater (feet)	100 to 200	5	
Distance to Surface Water (feet)	>1000	0	
Dist. Nearest Municipal Well (ft)	>5280	0	
Distance to Other Wells (feet)		20	
Native Soil Type	Mod permeability	10	
Fluid Type	Fresh Water	5	
Drill Cuttings	Normal Rock	0	
Annual Precipitation (inches)		0	
Affected Populations			
Presence Nearby Utility Conduits	Not Present	0	
	Final Score	40	1 Sensitivity Level

Characteristics / Requirements

The proposed reserve pit is 120' x 260' x 12' deep located in a cut on the northwest corner of the location. Kerr McGee plans a 30-mil liner with a double felt sub-liner.

Closed Loop Mud Required? N Liner Required? Y Liner Thickness 30 Pit Underlayment Required? Y

Other Observations / Comments

Floyd Bartlett (DOGM), Sheila Wopsock, Clay Einerson, Lovell Young, Grizz Oleen, Charles Chase, Colby Sutton, Doyle Holmes, Claudia Sass, (Kerr McGee), Mitch Batty, John Slaugh, (Timberline Engineering and Land Surveying), Jim Davis (SITLA) and Ben Williams, (UDWR).

Floyd Bartlett 11/30/2010

Evaluator Date / Time

1/5/2011 Page 2

1/5/2011

Application for Permit to Drill Statement of Basis

Utah Division of Oil, Gas and Mining

Page 1

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
3165	43047513510000	LOCKEI	O GW	S	No
Operator	KERR-MCGEE O	IL & GAS ONSHORE,	L.P. Surface Owner-APD		
Well Name	NBU 921-35C4CS	}	Unit	NATURAL I	BUTTES
Field	NATURAL BUTT	TES	Type of Work	DRILL	
Location	SENW 35 9S	21E S 1686 FNL	1699 FWL GPS Coord (UTM)	626213E 44	428052N

Geologic Statement of Basis

Kerr McGee proposes to set 2,450' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 2,100'. A search of Division of Water Rights records shows one water well within a 10,000 foot radius of the center of Section 35. The well is listed as 2,640 feet deep and used for drilling water. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. The proposed casing and cement should adequately protect. Any usable ground water.

Brad Hill 12/20/2010 **APD Evaluator Date / Time**

Surface Statement of Basis

The general area is within the Natural Buttes Unit in the lower portion of the Sand Wash Drainage of Uintah, County, approximately 37 air miles and 44.5 road miles south of Vernal, Utah. Access is by State of Utah Highways, Uintah County and existing oilfield development roads. Topography of the Sand Wash area is characterized by broad open flats dissected by numerous sub-drainages, which often become steep with ridges and draws with exposed sandstone layers. No perennial streams occur in the drainage. Individual draws or washes are ephemeral with spring runoff or flows from sometimes-intense summer rainstorms. No springs exist in the area. An occasional constructed pond occurs, furnishing water for antelope or livestock.

The NBU 921-35F2 pad will be enlarged to include four gas wells to be directionally drilled. They are the NBU 921-35F1BS, NBU 921-35C4CS, NBU 921-35E2AS and NBU 921-35E1CS. The pad extends a small existing pad containing the NBU 443 producing gas well in all directions except to the east. Terrain In the area is gentle and rolling. To obtain the needed fill for the enlarged pad the elevation at the well head will be cut. This cut however may be able to be reduced from the planned 3 feet to about 1 ½ feet. No drainages intersect the location and no diversions are needed. A major tributary of Sand Wash is about one mile to the east of the site and the White River about 3 miles down drainage. The selected site appears to be suitable for enlarging a pad, drilling and operating the proposed wells and is the only site in the immediate area.

Both the surface and minerals are owned by SITLA. Jim Davis represented SITLA at the pre-site investigation. Mr. Davis had no concerns pertaining to this location excepted as covered above. SITLA provided a seed mix to be used when reclaiming the site.

Ben Williams represented the Utah Division of Wildlife Resources. Mr. Williams stated the area is classified as crucial yearlong antelope habitat but recommended no restrictions for this species. No other wildlife will be significantly affected.

Floyd Bartlett 11/30/2010
Onsite Evaluator Date / Time

1/5/2011

Application for Permit to Drill Statement of Basis

Utah Division of Oil, Gas and Mining

Page 2

Conditions of Approval / Application for Permit to Drill

Category Condition

Pits A synthetic liner with a minimum thickness of 30 mils with a double felt subliner shall be properly installed and

maintained in the reserve pit.

Surface The reserve pit shall be fenced upon completion of drilling operations.

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 11/18/2010 **API NO. ASSIGNED:** 43047513510000

WELL NAME: NBU 921-35C4CS

PHONE NUMBER: 720 929-6156 **OPERATOR:** KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995)

CONTACT: Danielle Piernot

PROPOSED LOCATION: SENW 35 090S 210E **Permit Tech Review:**

> **SURFACE: 1686 FNL 1699 FWL Engineering Review:**

> **BOTTOM:** 1187 FNL 2148 FWL Geology Review:

COUNTY: UINTAH

LATITUDE: 39.99511 LONGITUDE: -109.52157

UTM SURF EASTINGS: 626213.00 NORTHINGS: 4428052.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: UO 01194 ST PROPOSED PRODUCING FORMATION(S): WASATCH-MESA VERDE

SURFACE OWNER: 3 - State COALBED METHANE: NO

RECEIVED AND/OR REVIEWED: LOCATION AND SITING:

 PLAT R649-2-3.

Unit: NATURAL BUTTES Bond: STATE/FEE - 22013542

Potash R649-3-2. General

Oil Shale 190-3 R649-3-3. Exception

Oil Shale 190-13 **Drilling Unit**

Board Cause No: Cause 173-14 Water Permit: Permit #43-8496

Effective Date: 12/2/1999 **RDCC Review:**

Siting: 460' Fr U Bdry & Uncommitted Tracts **Fee Surface Agreement**

✓ Intent to Commingle R649-3-11. Directional Drill

Commingling Approved

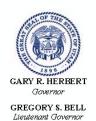
Oil Shale 190-5

Comments: Presite Completed

Stipulations:

3 - Commingling - ddoucet 5 - Statement of Basis - bhill 15 - Directional - dmason 17 - Oil Shale 190-5(b) - dmason 25 - Surface Casing - hmacdonald

API Well No: 43047513510000



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: NBU 921-35C4CS
API Well Number: 43047513510000
Lease Number: UO 01194 ST
Surface Owner: STATE

Approval Date: 1/5/2011

Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:

In accordance with Board Cause No. 173-14 commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Surface casing shall be cemented to the surface.

API Well No: 43047513510000

Additional Approvals:

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan contact Dustin Doucet
- Significant plug back of the well contact Dustin Doucet
- Plug and abandonment of the well contact Dustin Doucet

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well contact Carol Daniels OR
- submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at https://oilgas.ogm.utah.gov
- 24 hours prior to testing blowout prevention equipment contact Dan Jarvis
- 24 hours prior to cementing or testing casing contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well contact Dan Jarvis

Contact Information:

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 office
- Dustin Doucet 801-538-5281 office

801-733-0983 - after office hours

• Dan Jarvis 801-538-5338 - office

801-231-8956 - after office hours

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) due prior to implementation
- Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
- Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

Approved By:

For John Rogers Associate Director, Oil & Gas Sundry Number: 13921 API Well Number: 43047513510000

	STATE OF UTAH		FORM 9
	DIVISION OF OIL, GAS, AND MINI	NG	5.LEASE DESIGNATION AND SERIAL NUMBER: UO 01194 ST
SUNDF	RY NOTICES AND REPORTS O	N WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for proposition hole depth, reenter plu DRILL form for such proposals.	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 921-35C4CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047513510000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	PHONE treet, Suite 600, Denver, CO, 80217 3779	NUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1686 FNL 1699 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: SENW Section: 35	IP, RANGE, MERIDIAN: Township: 09.0S Range: 21.0E Meridian: S		STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPORT,	OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	☐ ACIDIZE ☐	ALTER CASING	☐ CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	☐ CHANGE TO PREVIOUS PLANS	CHANGE TUBING	☐ CHANGE WELL NAME
4/5/2011	☐ CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
SUBSEQUENT REPORT	☐ DEEPEN ☐	FRACTURE TREAT	☐ NEW CONSTRUCTION
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK
_	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION ☐	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	☐ TUBING REPAIR	VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT	☐ WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
Report Date:	☐ WILDCAT WELL DETERMINATION ✓	OTHER	OTHER: Pit Refub- ACTS
12. DESCRIBE PROPOSED OR CO	MPLETED OPERATIONS. Clearly show all pertin	ent details including dates, denths, v	,
Kerr-McGee Oil & Ga	as Onshore, LP is requesting to	refurb the existing pit on	
	r completion operations. The re		
	the COA of the APD. Upon comp		
	lso requesting to utilize this pit completion operations in the are		
l .	nks before the water is placed in		04/04/2011
	anks is to collect any hydro-car		ate:
	other completion operations before		
	pit open for 1 year. During this on fluids will be recycled in this		
		s. Thank you.	,
NAME (PLEASE PRINT)	PHONE NUMBER	TITLE Regulatory Applyet	
Danielle Piernot	720 929-6156	Regulatory Analyst	
SIGNATURE N/A		DATE 3/31/2011	

Sundry Number: 13921 API Well Number: 43047513510000



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43047513510000

A synthetic liner with a minimum thickness of 30 mils with a felt subliner shall be properly installed and maintained in the pit.

Sundry Number: 14334 API Well Number: 43047513510000

			FORM
	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES		FORM 9
	5.LEASE DESIGNATION AND SERIAL NUMBER: UO 01194 ST		
SUNDF	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
	sals to drill new wells, significantly deepen e Igged wells, or to drill horizontal laterals. Us		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 921-35C4CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047513510000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	PHON treet, Suite 600, Denver, CO, 80217 3779	E NUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1686 FNL 1699 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: SENW Section: 35	IP, RANGE, MERIDIAN: Township: 09.0S Range: 21.0E Meridian: S	:	STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPORT,	OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	☐ ACIDIZE	ALTER CASING	CASING REPAIR
☐ NOTICE OF INTENT	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
Approximate date work will start:	☐ CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN [FRACTURE TREAT	☐ NEW CONSTRUCTION
Date of Work Completion.	OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK
/	☐ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
✓ SPUD REPORT Date of Spud: 4/9/2011	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
4/8/2011	☐ TUBING REPAIR	VENT OR FLARE	☐ WATER DISPOSAL
DRILLING REPORT Report Date:	☐ WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
Report Bute.	☐ WILDCAT WELL DETERMINATION	OTHER	OTHER:
12 DESCRIPE PROPOSED OF CO			<u></u>
	OMPLETED OPERATIONS. Clearly show all perti BUCKET RIG. DRILLED 20" CC		olumes, etc.
	EDULE PIPE. CMT W/28 SX RE		
	04/08/2011 AT 1:00 PM.		accepted by the
			Jtah Division of
			, Gas and Mining
		FOR	RECORD ONLY
		I	
NAME (PLEASE PRINT) Sheila Wopsock	PHONE NUMBER 435 781-7024	TITLE Regulatory Analyst	
SIGNATURE N/A		DATE 4/11/2011	

Sundry Number: 14437 API Well Number: 43047513510000

			FORM 9
	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES		
	5.LEASE DESIGNATION AND SERIAL NUMBER: UO 01194 ST		
SUNDF	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
Do not use this form for proposition-hole depth, reenter plu DRILL form for such proposals.	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 921-35C4CS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSI	9. API NUMBER: 43047513510000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1686 FNL 1699 FWL	COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: SENW Section: 35	P, RANGE, MERIDIAN: Township: 09.0S Range: 21.0E Meridian: S		STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICATE N	ATURE OF NOTICE, REPORT,	OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
☐ NOTICE OF INTENT	☐ CHANGE TO PREVIOUS PLANS	CHANGE TUBING	☐ CHANGE WELL NAME
Approximate date work will start:	☐ CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION
Dute of from completions	☐ OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION ☐	SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
		VENT OR FLARE	WATER DISPOSAL
✓ DRILLING REPORT	□ WATER SHUTOFF □	SI TA STATUS EXTENSION	APD EXTENSION
Report Date: 4/17/2011		OTHER	
			OTHER:
MIRU AIR RIG ON A RAN 8 5/8" 28# 1J55	MPLETED OPERATIONS. Clearly show all pertiner PRIL 15, 2011. DRILLED 11" SUF SURFACE CASING. CEMENTED STARY RIG. DETAILS OF CEMENT JUST WITH WELL COMPLETION REPORTS	RAFCE HOLE TO 2650'. SURFACE CASING. WELL OB WILL BE INCLUDE RT. Oil	_
Andy Lytle	720 929-6100	Regulatory Analyst	
SIGNATURE N/A		DATE 4/18/2011	

SUBMIT AS EMAIL

Print Form

BLM - Vernal Field Office - Notification Form

Oper	rator KERR-McGEE OIL & GA	S Rig Name	e/# <u>BUC</u>	KET	RIG
Subr	nitted By ANDY LYTLE	Phone Nur	nber <u>720</u>).929.(6100
Well	Name/Number NBU 921-350	C4CS			·
	Qtr <u>SENW</u> Section 35		9S	Range	e <u>21E</u>
	e Serial Number <u>UO-01194 S</u>				
API I	Number <u>4304751351</u>				
-	d Notice – Spud is the initial pelow a casing string.	spudding o	of the w	ell, no	ot drilling
	Date/Time <u>04/08/2011</u>	10:00 HRS	АМ 🗌	PM	
<u>Casir</u>	<u>ng</u> – Please report time casi s.	ing run star	ts, not o	emer	nting
$\overline{\mathbf{V}}$	Surface Casing				RECEIVED
	Intermediate Casing				APR 07 2011
	Production Casing			DIV	OF OIL, GAS & MINING
	Liner			2.1	o. o.e., and a minimum
	Other				
	Date/Time 04/15/2011	08:00 HRS	АМ 🗌	PM	
BOPI	E				
		casing poir	nt		
	BOPE test at intermediate	casing point	t		
	30 day BOPE test	- -			
	Other				
	Date/Time		АМ 🗌	PM	
Rem	arks estimated date and time. Plea	SE CONTACT KENN	Y GATHINGS	AT	
435.82	8.0986 OR LOVEL YOUNG AT 435.781.705	51			

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

ENTITY ACTION FORM

Operator:

KERR McGEE OIL & GAS ONSHORE LP

Operator Account Number: N 2995

Address:

1368 SOUTH 1200 EAST

city VERNAL

state UT _{zip} 84078

Phone Number: (435) 781-7024

Well 1

BU 921-35E1CS					Rng	County
		SENW	35	98	21E	UINTAH
Current Entity Number	New Entity Number	s	Spud Date		Entity Assignment Effective Date	
99999	2900		4/8/2011		4	125/11
	Number 99999	Number Number 99999 2900	Number Number 99999 3900	Number Number 99999 3900 4/8/2011	Number Number 99999 3900 4/8/2011	Number Number Eff 99999 3900 4/8/2011 4/

Wall 2

ew Entity Number	SENW	35 nud Da	98	Rng 21E	County UINTAH
	S	nud Da	<u> </u>	 	
winder		Spud Date		Entity Assignment Effective Date	
900		4/8/201	1	11/	35/11
	900 W574 00 AM.	WSMVD	WSMVD	WSMID	1900 4/8/2011 4/c

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304751351	NBU 921-35C4CS		SENW	35	98	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
B	99999	2900		4/8/201	1		25/11

ACTION CODES:

- A Establish new entity for new well (single well only)
- B Add new well to existing entity (group or unit well)
- C Re-assign well from one existing entity to another existing entity
- D Re-assign well from one existing entity to a new entity
- E Other (Explain in 'comments' section)

SHEILA WOPSOCK

Name (Please Print)

Signature

REGULATORY ANALYST

Title

Date

(5/2000)

RECEIVED

APR 1 1 2011

State of Utah - Notification Form

Operator Anadarko Petroleum Rig Name/# _Ensign 139 Submitted By SID ARMSTRONG Phone Number 435- 828- 0984 Well Name/Number NBU-921-35C4CS Qtr/Qtr SE/NW Section 35 Township 9S Range 21E Lease Serial Number _UO 01194ST API Number _43047513510000
<u>Casing</u> – Time casing run starts, not cementing times.
□ Production Casing □ Other RECEIVED Date/Time AM □ PM ☒ MAY 2 6 2011
Date/Time AM \(\to \) PM \(\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\tilde{\ti}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}
BOPE Initial BOPE test at surface casing point Other
Date/Time <u>5/27/2011</u> <u>08:00</u> AM ☑ PM □
Rig Move Location To:
Date/Time AM ☑ PM □
Remarks BE SKIDDING RIG TO NBU 921 - 35C4CS 5/27/2011

Sundry Number: 15632 API Well Number: 43047513510000

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING			FORM 9			
			5.LEASE DESIGNATION AND SERIAL NUMBER: UO 01194 ST			
SUND	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:					
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.			7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES			
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 921-35C4CS			
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.			9. API NUMBER: 43047513510000			
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES					
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1686 FNL 1699 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SENW Section: 35 Township: 09.0S Range: 21.0E Meridian: S			COUNTY: UINTAH			
			STATE: UTAH			
11. CHE	CK APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPORT,	OR OTHER DATA			
TYPE OF SUBMISSION		TYPE OF ACTION				
MIRU ROTARY RIG. 2011. RAN 4-1/2" 11.6# P110 CSG FR RELEASED ENSIGN CEMENT JOB WILL	CHANGE TO PREVIOUS PLANS CHANGE WELL STATUS DEEPEN OPERATOR CHANGE PRODUCTION START OR RESUME REPERFORATE CURRENT FORMATION UBING REPAIR WATER SHUTOFF WILDCAT WELL DETERMINATION SMPLETED OPERATIONS. Clearly show all pertine FINISHED DRILLING FROM 265 11.6# I-80 PRODUCTION CASINATION ROM 9437' TO 9879'. CEMENTED RIG 139 ON JUNE 3, 2011 @ 1 BE INCLUDED WITH THE WELL WAITING ON FINAL COMPLETION	O' TO 9905' ON JUNE 1, NG TO 9437'. RAN 4 ½" PRODUCTION CASING O:00 HRS. DETAILS OF COMPLETION REPOR DI	Accepted by the Jtah Division of			
NAME (DI EAST PRINT)	DUONE NUMBER	Trrie				
NAME (PLEASE PRINT) Andy Lytle	720 929-6100	TITLE Regulatory Analyst				
SIGNATURE N/A		DATE 6/6/2011				

State of Utah - Notification Form

Operator <u>Anadarko Petroleum</u> Rig Name/# <u>Ensign 139</u>	
Submitted By SID ARMSTRONG Phone Number 435- 828-	
0984_	
Well Name/Number NBU-921-35C4CS	
Qtr/Qtr <u>SE/NW</u> Section <u>35</u> Township <u>9S</u> Range 21E	
Lease Serial Number <u>UO 01194ST</u>	
API Number43047513510000	
<u>Casing</u> – Time casing run starts, not cementing times.	
Production Casing	
Production Casing Other	
Date/Time <u>6/2/2011</u> <u>06:00</u> AM \boxtimes PM \boxtimes	
bate/ Time <u>6/2/2011</u> <u>60.00</u> AM	
BOPE	
Initial BOPE test at surface casing point	
Other	D
MAY 3 1 201	1
Date/Time AM PM DIV. OF OIL, GAS & MI	MINI
7 tt 7	IARIA
Rig Move	
Location To:	
Date/Time AM 🔀 PM 🗌	
Remarks BE SKIDDING RIG TO NBU 921 - 35F1BS	
6/3/2011	

Sundry Number: 15711 API Well Number: 43047513510000

			FORM 9
	STATE OF UTAH		
	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINI		5.LEASE DESIGNATION AND SERIAL NUMBER: UO 01194 ST
	RY NOTICES AND REPORTS O	_	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for propo bottom-hole depth, reenter plu DRILL form for such proposals	sals to drill new wells, significantly deepen e ugged wells, or to drill horizontal laterals. Use	xisting wells below current e APPLICATION FOR PERMIT TO	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 921-35C4CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047513510000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	PHONE Street, Suite 600, Denver, CO, 80217 3779	E NUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1686 FNL 1699 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	IP, RANGE, MERIDIAN: 5 Township: 09.0S Range: 21.0E Meridian: S		STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPORT,	OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	☐ CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
6/8/2011	☐ CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
SUBSEQUENT REPORT	DEEPEN [FRACTURE TREAT	☐ NEW CONSTRUCTION
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
☐ DRILLING REPORT	☐ WATER SHUTOFF	SI TA STATUS EXTENSION	☐ APD EXTENSION
Report Date:	☐ WILDCAT WELL DETERMINATION	OTHER	OTHER: Pit Utilization
12. DESCRIBE PROPOSED OR CO	DMPLETED OPERATIONS. Clearly show all pertin	nent details including dates, depths, v	olumes. etc.
Kerr-McGee Oil & Ga this multi-well pad fo per the requirements this pad, Kerr-McGe pit to be utilized for this pit open for completion fluids wil the surrounding sec	as Onshore, LP is requesting to the completion operations. The in the COA of the APD. Upon one is also requesting to utilize the other completion operations in the type of the the surface of the completion operations in the surface of the completion operations. It is not the surface of the completion operations in the completion operations in the completion operations in the completion operations. The following wells are of NBU 921-35E1CS, NB	refurb the existing pit on the refurb pit will be relined completion of the wells or is pit as an ACTS staging the area. We plan to keep rounding well location ized for other frac jobs in the NBU 921-35F2 Pad: E2AS & NBU 921-35F1B	Approved by the Utah Division of Oil, Gas and Mining
NAME (PLEASE PRINT) Gina Becker	PHONE NUMBER 720 929-6086	TITLE Regulatory Analyst II	
SIGNATURE N/A		DATE 6/8/2011	

Sundry Number: 15711 API Well Number: 43047513510000



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43047513510000

A synthetic liner with a minimum thickness of 30 mils with a felt subliner shall be properly installed and maintained in the pit.

Sundry Number: 17231 API Well Number: 43047513510000

	STATE OF UTAH		FORM 9
	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	3	5.LEASE DESIGNATION AND SERIAL NUMBER: UO 01194 ST
SUNDE	RY NOTICES AND REPORTS ON	I WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	sals to drill new wells, significantly deepen exis igged wells, or to drill horizontal laterals. Use A		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 921-35C4CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047513510000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	PHONE N treet, Suite 600, Denver, CO, 80217 3779	UMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1686 FNL 1699 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: SENW Section: 35	P, RANGE, MERIDIAN: Township: 09.0S Range: 21.0E Meridian: S		STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICATE N	ATURE OF NOTICE, REPORT,	OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
THE SUBJECT WELL	CHANGE TO PREVIOUS PLANS CHANGE WELL STATUS DEEPEN OPERATOR CHANGE ✓ PRODUCTION START OR RESUME REPERFORATE CURRENT FORMATION TUBING REPAIR WATER SHUTOFF	ON 08/02/2011 AT 2:00 SUBMITTED WITH THE A L Oil	CASING REPAIR CHANGE WELL NAME CONVERT WELL TYPE NEW CONSTRUCTION PLUG BACK RECOMPLETE DIFFERENT FORMATION TEMPORARY ABANDON MATER DISPOSAL APD EXTENSION OTHER: Columes, etc. ACCEPTED by the Utah Division of Gas and Mining Context Accepted Section 1.5 Context Accepted Section
NAME (PLEASE PRINT) Sheila Wopsock	PHONE NUMBER 435 781-7024	TITLE Regulatory Analyst	
SIGNATURE N/A		DATE 8/3/2011	

				RTMEN		ATURA	L RESC	OURCES MININ	D			(hi	ghlight (EASE DE	Changes) SIGNATION AND S 194 ST		DRM 8 BER:
WEL	LCOM	PLET	ION	OR F	RECC	MPL	ETIC	ON RI	EPOF	RT AND	LOG	6. IF	INDIAN,	ALLOTTEE OR TR	BE NAME	
ia. TYPE OF WELL		OI W	L ELL		GAS WELL	7	DRY		ОТН	IER				AGREEMENT NAM 3047A	ΛE	
b. TYPE OF WORK NEW WELL	K: HORIZ. LATS.] DE	EP-]	RE- ENTRY		DIFF. RESVR.		ОТН	HER AME	ENDED	8. V	VELL NAIV	IE and NUMBER:	;	
2. NAME OF OPERA KERR MC		L & GA	SON	SHOF	RE, L.F	P.							PI NUMBI 43047	ER: 51351	MSN(THEOretical continue in the continue of th	
B. ADDRESS OF OF P.O.BOX 17	73779		ITY DE	NVEF	₹	STATE	СО	ZIP 80 2	217	8	NUMBER: 20) 929-6100			POOL, OR WILDO		
4. LOCATION OF W			NI 16	99 EW	VI 53F	201	P21E			**************************************		11.	QTR/QTR MERIDIAN	, SECTION, TOWN V:	SHIP, RANG	Ε,
AT SURFACE: SENW 1686 FNL 1699 FWL S35,T9S,R21E AT TOP PRODUCING INTERVAL REPORTED BELOW: NENW 1170 FNL 2134 FWL S35, T9S, R21E AT TOTAL DEPTH: NENW 1179 FNL 2159 FWL S35, T9S, R21E 12. COUNTY 13. STATE																
AT TOTAL DEPT	H: NEN	W 1179	FNL	2159	FWL S	335, T	9S, R	21E					COUNTY		13. STATE	UTAH
4/8/2011	D: 1	5. DATE T. 6/1/20		HED:	Water Stoke Cole	E COMPL 2011	ETED:	, A	ABANDON	IED	READY TO PRODU	CE 🖊		VATIONS (DF, RKB	, RT, GL):	
18. TOTAL DEPTH:	MD 9,9	905		9. PLUG	BACK T.E	D.: MD	9,834 9,746		20. IF	MULTIPLE CO	OMPLETIONS, HOW	MANY?*	21. DEP	TH BRIDGE MD UG SET:		
22. TYPE ELECTRIC	C AND OTHE	R MECHAN	IICAL LOG	SS RUN (Submit cop					23.						
RCBL-CHI TRIPLE COMBO-RMTE WAS WELL CORED? NO YES (Submit analysis) WAS DST RUN? NO YES (Submit report) DIRECTIONAL SURVEY? NO YES (Submit copy)																
24. CASING AND LI	AND LINER RECORD (Report all strings set in well)															
HOLE SIZE	SIZE/GR/	ADE	WEIGHT (#/ft.) TOP (MD) BOTTOM (MD) STAGE CEMENTER CEMENT TYPE & SLURRY VOLUME (BBL) CEMENT TOP ** AMOUNT PULL												PULLED	
20"		STL	36.7	-				0			28					
11"		J-55	287					626			650			0		
7 7/8" 7 7/8"	4 1/2"	I-80	11.6		0.4	0.7		437			1,510			390		
1 1/0	4 1/2"	P110	11.0	0#	9,4	31	9,0	379								
						-										
5. TUBING RECOR	RD						***************************************									
SIZE 2 3/8"		SET (MD)	PACKE	ER SET (MD)	SIZE		DEPTH	SET (MD) PACKER	R SET (MD)	SIZE	D	EPTH SET (MD)	PACKER S	ET (MD)
6. PRODUCING IN								L		27. PERFOR	RATION RECORD					
FORMATION	NAME	TOP ((MD)	вотто	M (MD)	TOP	(TVD)	ВОТТО	M (TVD)	-	L (Top/Bot - MD)	SIZE	NO. HOL	ES PERFOR	RATION STAT	TUS
A) WASATC	Н	7,4	86	7,4	188			 		7,486	7,488	0.36	8	Open 🗸	Squeezed	
B) MESAVEI	RDE	7,5	558	9,	750					7,558	9,750	0.36	184	Open 🗸	Squeezed	
C)												-		Open	Squeezed	
D)														Open	Squeezed	
8. ACID, FRACTUR	RE, TREATME	ENT, CEME	NT SQUE	EZE, ETO	3 .											
DEPTH I	NTERVAL								AM	OUNT AND T	YPE OF MATERIAL	***************************************				
7486 - 9750			PUM	IP 900)5 BB	LS SL	ICK H	20 &	171,97	79 LBS 3	30/50 OTTAV	VA SAI	ND			
			NEW	/ REV	ISED	COMF	PLETI	ON CH	IRON	O ATTA	CHED					
9. ENCLOSED ATT	TACHMENTS:	:									****			30. WEI	L STATUS:	
☐ FLECTS	RICAL/MECH/	ANICALIO	GS					GEOLOGI	O DEDO-	<u> </u>		7				
	Y NOTICE FO		7.	CEMENT	VERIFICA	TION		CORE AN			OST REPORT	☐ DIREC	TIONAL S	RECEIV	PROD)

OTHER:

NOV 0 1 2011

24 INITIAL DECENERATION			
	94	INSTRACT	DDODUOTION

INTERVAL A (As shown in Item #26)

8/2/2011	ODUCED:	8/3/20		HOURS TESTED): 24	TEST PRODUCTION RATES: →	OIL BBL:	GAS - MCF: 2.637	WATER - BE	
CHOKE SIZE:	TBG. PRESS.	CSG. PRE	SS. API GRAVIT			24 HR PRODUCTION		GAS - MCF:	1,083	
20/64	1,863	2,52	3			RATES: →	0	2,637	1,083	PROD
				INT	ERVAL B (As sho	wn in Item #26)				
DATE FIRST PR	ODUCED:	TEST DAT	E:	HOURS TESTED);	TEST PRODUCTION RATES: →	OIL – BBL:	GAS - MCF:	WATER BE	BL: PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRE	SS. API GRAVIT	Y BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL BBL:	GAS MCF:	WATER - BE	BL: INTERVAL STATUS:
				INT	ERVAL C (As sho	wn in item #26)				
DATE FIRST PR	ODUCED:	TEST DATI	E:	HOURS TESTED);	TEST PRODUCTION RATES: →	OIL – BBL:	GAS MCF:	WATER - BE	BL: PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRES	SS. API GRAVIT	Y BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS - MCF:	WATER - BE	BL: INTERVAL STATUS:
				INT	ERVAL D (As sho	wn in item #26)				
DATE FIRST PR	ODUCED:	TEST DAT	E:	HOURS TESTED):	TEST PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BE	BL: PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRES	SS. API GRAVIT	Y BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BE	BL: INTERVAL STATUS:
32. DISPOSITIO	N OF GAS (So	ld, Used for Fu	el, Vented, Etc.)							
33. SUMMARY	OF POROUS Z	ONES (Include	Aquifers):			3	4. FORMATION	(Log) MARKERS:		
Show all importa tested, cushion u	nt zones of porcesed, time tool o	osity and conten pen, flowing and	ts thereof: Cored int d shut-in pressures a	ervals and all drill-stem and recoveries,	tests, including de	epth interval				
Formation	on	Top (MD)	Bottom (MD)	Descript	ions, Contents, etc	. .		Name		Top (Measured Depth)
GREEN R BIRD'S NE MAHOGA	EST	1,607 1,874 2,429								

35. ADDITIONAL REMARKS (Include plugging procedure)

4,884

7,543

7,543

9,905

The first 210'of the surface hole was drilled with a 12 %" bit. The remainder of surface hole was drilled with an 11" bit. Attached is the chronological well history, perforation report & final survey.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available re	cords.
------------------------------------------------------------------------------------------------------------------------------	--------

TD

NAME (PLEASE PRINT) ANDREW LYTLE

SIGNATURE

DATE

NAME (PLEASE PRINT) ANDREW LYTLE

TITLE REGULATORY ANALYST

10/24/2011

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests
- * ITEM 20: Show the number of completions if production is measured separately from two or more formations.
- ** ITEM 24: Cement Top Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to:

WASATCH

MESAVERDE

Utah Division of Oil, Gas and Mining 1594 West North Temple, Suite 1210

Box 145801

Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

								REGION ary Report
Well: NBU 921-35	C4CS	[YELLOW]	of plant with Page 30	Spud Co	nductor: 4	/8/2011	<u> </u>	Spud Date: 4/15/2011
Project: UTAH-UIN	HAT			Site: NBI	J 921-35F	2 PAD		Rig Name No: GWS 1/1
Event: COMPLET	ION			Start Dat	e: 7/22/20)11		End Date: 8/2/2011
Active Datum: RKI Level)	B @5,	119.01ft (above	e Mean Sea		UWI: SE	E/ NW /0/9/	S/21/E/3	35/0/0/26/PM/N/1686/W/0/1699/0/0
Date	S	Time tart-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (ft)
7/22/2011	7:00	- 7:15	0.25	COMP	48		Р	HSM, PRESSURE TESTING
	7:15	- 15:00	7.75	COMP	47	В	P	MIRU B&C TESTERS, P/T CSG & FRAC VALVES TO 1000# W/ 6# LOSS IN 15 MIN. BUMP PRESSURE UP TO 3500# W/ 43# LOSS IN 15 MIN. BUMP PRESSURE UP TO 7000# W/ 112# LOSS IN 30 MIN, BUMP BACK UP TO 7000# W/ 105# LOSS IN 30 MIN. [GOOD TEST]
7/05/00/4	7,00							MIRU CASED HOLE SOLUTIONS 1ST SHOOT MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE, AS PERSAY IN DESIGN. SWIFN.
7/25/2011	7:00	- 7:45	0.75	COMP	48	_	P	HSM, PREFRAC DESIGN. PRESSURE TEST POPOFFS
	7:45	- 7:45	0.00	COMP	36	E	Р	FRAC STG #1] WHP=1,845#, BRK DN PERFS=3,143#, @=4.3 BPM, INJ RT=50.4, INJ PSI=5,714#, ISIP=2,511#, FG=.70, PUMP'D 2078 BBLS SLK WTR W/ 30,712# 30/50 MESH TOTAL PROP PUMP'D, ISIP=3,033#, FG=.75, AR=50.4, AP=5,402#, MR=50.9, MP=6,340#, NPI=522#, 22/24 92% CALC PERFS OPEN. X OVER TO WIRE LINE
								PERF STG #2] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=9,461', PERF LOWER MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW
								FRAC STG #2] WHP=1,654#, BRK DN PERFS=3,912#, @=4.9 BPM, INJ RT=42.3, INJ PSI=5,850#, ISIP=2,751#, FG=.73, PUMP'D 1043 BBLS SLK WTR W/ 20,029# 30/50 MESH TOTAL PROP PUMP'D, ISIP=3,244#, FG=.79, AR=48.3, AP=6,159#, MR=50.7, MP=6,497#, NPI=493#, 17/24 71% CALC PERFS OPEN. X OVER TO WIRE LINE
								PERF STG #3] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=9,196', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW
								FRAC STG #3] WHP=2,131#, BRK DN PERFS=3,984#, @=4.9 BPM, INJ RT=48.8, INJ PSI=5,711#, ISIP=2,935#, FG=.76, PUMP'D 829 BBLS SLK WTR W/15,284 # 30/50 MESH TOTAL PROP PUMP'D, ISIP=2,993#, FG=.77, AR=50.5, AP=5,677#, MR=50.8, MP=5,935#, NPI=58#, 24/24 100% CALC PERFS OPEN. X OVER TO WIRE LINE
								PERF STG #4] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,850°, PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW. SWIFN.

US ROCKIES REGION Operation Summary Report Spud Conductor: 4/8/2011 Well: NBU 921-35C4CS [YELLOW] Spud Date: 4/15/2011 Project: UTAH-UINTAH Site: NBU 921-35F2 PAD Rig Name No: GWS 1/1 Event: COMPLETION Start Date: 7/22/2011 End Date: 8/2/2011 UWI: SE/NW/0/9/S/21/E/35/0/0/26/PM/N/1686/W/0/1699/0/0 Active Datum: RKB @5,119.01ft (above Mean Sea Level) Date Duration Phase Code Sub P/U MD From Operation Start-End (hr) Code (ft) 7/26/2011 6:45 - 7:00 0.25 COMP 48 P HSM, HIGH PRESSURE & WIRELINE 7:00 - 7:00 0.00 COMP 36 E Ρ FRAC STG #4] WHP=1,642#, BRK DN PERFS=3,153#, @=4.7 BPM, INJ RT=50.7, INJ PSI=4,693#, ISIP=2,250#, FG=.70, PUMP'D 801 BBLS SLK WTR W/ 14,686# 30/50 MESH TOTAL PROP PUMP'D, ISIP=2,692#, FG=.75, AR=50.6, AP=4,872#, MR=52, MP=5,458#, NPI=442#, 24/24 100% CALC PERFS OPEN. X OVER TO WIRE LINE PERF STG #5] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,582', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW FRAC STG #5] WHP=1,483#, BRK DN PERFS=2,566#, @=4.5 BPM, INJ RT=50.5, INJ PSI=5,034#, ISIP=1,924#, FG=.67, PUMP'D 1,045 BBLS SLK WTR W/ 21,091# 30/50 MESH TOTAL PROP PUMP'D. ISIP=2.692#, FG=.75, AR=50.6. AP=4,622#, MR=51, MP=5,137#, NPI=627#, 21/24 89% CALC PERFS OPEN. X OVER TO WIRE LINE PERF STG #6] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,260', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW FRAC STG #6] WHP=1,665#, BRK DN PERFS=2,402#, @=4.9 BPM, INJ RT=50.7, INJ PSI=4,351#, ISIP=1,844#, FG=.67, PUMP'D 1,201 BBLS SLK WTR W/ 24,834# 30/50 MESH TOTAL PROP PUMP'D, ISIP=2,375#, FG=.73, AR=50.9, AP=4,223#, MR=51.1, MP=4,709#, NPI=531# 24/24 100% CALC PERFS OPEN, X OVER TO WIRE LINE PERF STG #7] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7,892', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW, [MISSFIRE TOP GUN DID NOT SHOOT POOH FIX PROBLEM RUN BACK IN HOLE.] SWIFN. 7/27/2011 7:00 - 7:15 0.25 COMP P 48 HSM. FRACING

				Ü	S ROC	KIES R	EGION						
				Opera	ation S	umma	ry Report						
Well: NBU 921-3	5C4CS [YELLOW]	<u> </u>	Spud Co	nductor: 4	4/8/2011		Spud Date: 4/15	V2011					
Project: UTAH-U			Site: NBI	J 921-35F	2 PAD	······································	······································	Rig Name No: GWS 1/1					
Event: COMPLE	TION		Start Dat	e: 7/22/20	011			End Date: 8/2/2011					
Active Datum: Rh Level)	KB @5,119.01ft (abo	ve Mean Sea		UWI: SI	E/ NW /0/9/	/S/21/E/3	5/0/0/26/PM/N/168						
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation					
	7:15 - 7:15	0.00	COMP	36	E .	P		FRAC STG #7] WHP=981#, BRK DN PERFS=2,887#, @=4.6 BPM, INJ RT=50.1, INJ PSI=5,727#, ISIP=2,102#, FG=.71, PUMP'D 1,363 BBLS SLK WTR W/ 28,224# 30/50 MESH TOTAL PROP PUMP'D, ISIP=2,601#, FG=.77, AR=50.3, AP=5,492#, MR=50.6, MP=5,893#, NPI=499#, 18/24 75% CALC PERFS OPEN. X OVER TO WIRE LINE PERF STG #8] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7,676', PERF MESAVERDE / WASATCH USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW					
								FRAC STG #8] WHP=1,802#, BRK DN PERFS=2,792#, @=4 BPM, INJ RT=45.6, INJ PSI=5,500#, ISIP=2,057#, FG=.72, PUMP'D 644 BBLS SLK WTR W/ 17,119# 30/50 MESH TOTAL PROP PUMP'D, ISIP=2,593#, FG=.78, AR=48.3, AP=5,492#, MR=50.2, MP=6,238#, NPI=536#, 16/24 68%7,436 CALC PERFS OPEN.					
·								P/U RIH W/ HALIBURTON 8K CBP, SET FOR TOP KILL @=7,436'					
								9,005 TOTAL BBLS PUMP'D 171,979# TOTAL SAND PUMP'D 781 GALS SCALE INHIB 153 GALS BIO					
8/1/2011	7:00 - 7:15	0.25	COMP	48		Р		HSM, SLIPS, TRIPS & FALLS, PU TBG					
	7:15 - 17:00	9.75	COMP	31	I	P		MIRU, SPOT EQUIP, ND WH, NU BOP, RU FLOOR & TBG EQUIP, SPOT TBG TRAILER, PU 3 7/8" BIT, POBS, XN SN & 2 3/8" TBG TO 7,420', RU POWER SWIVEL, FILL TBG BREAK CIRC, PRESS TEST BOP TO 3,000 PSI FOR 15 MIN, LOST 0 PSI, START DRLG PLUGS, SURFACE CSG VALVE OPEN & LOCKED.					
								C/O 30' SAND, TAG 1ST PLUG @ 7,450' DRL PLUG IN 9 MIN. 600 PSI INCREASE RIH, CSG PRESS 50 PSI.					
								C/O 30' SAND, TAG 2ND PLUG @ 7,680' DRL PLUG IN 8 MIN. 300 PSI INCREASE RIH, CSG PRESS 75 PSI.					
								C/O 70' SAND, TAG 3RD PLUG @ 7,892' DRL PLUG IN 10 MIN. 350 PSI INCREASE RIH, CSG PRESS 100 PSI. LET WELL CLEAN UP FOR 20 MIN, D/O REMAINING PLUGS IN AM, SWI, SDFN.					
8/2/2011	7:00 - 7:15	0.25	СОМР	48		Р		CALLED CDC TALKED TO SONNY FOR TURN ON TOMORROW. HSM, SLIPS, TRIPS & FALLS, PICKING POWER SWVEL UP & DOWN.					

						KIES RE							
NAME AND LOCATION	CACC DUTLI OLAT				ATTION OF STREET	vunulliä	ry Report	1904					
Well: NBU 921-35 Project: UTAH-UI	NTAH		Spud Co				Spud Date: 4/15						
Event: COMPLET						T		Rig Name No: GWS 1/1					
	(B @5,119.01ft (abov	e Mean Sea	Start Date	·		/S/21/E/35	5/0/0 /26/PM/N /168	End Date: 8/2/2011 /1686/W/0/1699/0/0					
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation					
	7:15 - 17:00	9.75	COMP	44	С	Р		SICP 1,400 PSI, OPEN WELL HAD LITTLE PUFF OF GAS THEN MOSTLY STRAIGHT WATER, D/O REMAINING PLUGS, SURFACE CSG VALVE OPEN & LOCKED. C/O 35' SAND, TAG 4TH PLUG @ 8,266' DRL PLUG IN 8 MIN. 500 PSI INCREASE RIH, CSG PRESS 250					
								PSI. C/O 30' SAND, TAG 5TH PLUG @ 8,582' DRL PLUG IN 11 MIN. 300 PSI INCREASE RIH, CSG PRESS 450 PSI.					
								C/O 45' SAND, TAG 6TH PLUG @ 8,856' DRL PLUG IN 10 MIN. 400 PSI INCREASE RIH, CSG PRESS 450 PSI.					
								C/O 30' SAND, TAG 7TH PLUG @ 9,196' DRL PLUG IN 9 MIN. 500 PSI INCREASE RIH, CSG PRESS 500 PSI.					
								C/O 30' SAND, TAG 8TH PLUG @ 9,461' DRL PLUG IN 12 MIN. 500 PSI INCREASE RIH, CSG PRESS 500 PSI.					
								PBTD @ 9,832', BTM PERF @ 9,750', RIH TAG @ 9,775', P/U POWER SWIVEL, C/O FROM 9,775' TO 9,832 PBTD, 82' PAST BTM PERF W/ 310 JTS 2 3/8" L-80 TBG, LD 20 JTS, PU & STRIP IN TBG HANGER & LAND TBG W/ 290 JTS 2 3/8" L-80, EOT 9,198.21'.					
								RD POWER SWIVEL, FLOOR & TBG EQUIP, ND BOPS, NU WH, DROP BALL TO SHEAR OFF BIT W/ 3,000 PSI, LET BIT FALL FOR 20 MIN.					
								TURN OVER TO FLOW BACK CREW, RD & MOVE TO NEXT WELL ON PAD.					
								KB= 14' 4 1/16" WEATHERFORD HANGER= .83' DELIVERED 315 JTS 290 JTS 2 3/8" L-80 = 9,181.18' TBG					
								USED 290 JTS POBS= 2.20' RETURNED 25 JTS EOT @ 9,198.21'					
								TWTR= 8,864 BBLS 2,000 BBLS TWLTR= 6,864 BBLS CALLED CDC TALKED TO SONNY					
	14:00 - 14:00	0.00	PROD	50				WELL TURNED TO SALES @ 1400 HR ON 8/2/11 - 1225 MCFD, 1920 BWPD, CP 2700#, FTP 2300#, CK 20/64"					

10/20/2011 3:29:48PM

					Opera	ition S	Summary Report				
Well: NBU 921-3	35C4CS[YELLOW]		Spud Cor	nductor: 4	1/8/2011	1 Spud Date: 4/15/2011				
Project: UTAH-UINTAH S					921-35F	2 PAD	Rig Name No: GWS 1/1				
Event: COMPLETION 5				Start Date	e: 7/22/20	011	End Date: 8/2/2011				
Active Datum: RKB @5,119.01ft (above Mean Sea Level)					UWI: SE/NW/0/9/S/21/E/35/0/0/26/PM/N/1686/W/0/1699/0/0						
Date	A Maria Andrews	Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U MD From Operation (ft)				
8/3/2011	7:00	-			33	A	7 AM FLBK REPORT: CP 3550#, TP 2600#, 20/64" CK, 0 BWPH, HVY SAND, - GAS TTL BBLS RECOVERED: 2630 BBLS LEFT TO RECOVER: 6375				
8/4/2011	7:00	-			33	Α	7 AM FLBK REPORT: CP 3300#, TP 2250#, 20/64" CK, 42 BWPH, MED SAND, - GAS TTL BBLS RECOVERED: 3713 BBLS LEFT TO RECOVER: 5292				
8/5/2011	7:00	-			33	Α	7 AM FLBK REPORT: CP 3050#, TP 2050#, 20/64" CK, 35 BWPH, MED SAND, - GAS TTL BBLS RECOVERED: 4632 BBLS LEFT TO RECOVER: 4373				
8/6/2011	7:00	-			33	Α	7 AM FLBK REPORT: CP 2800#, TP 1900#, 20/64" CK, 28 BWPH, TRACE SAND, - GAS TTL BBLS RECOVERED: 5364 BBLS LEFT TO RECOVER: 3641				

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES

AMENDED REPORT 🗸 (highlight changes)	FORM 8
5. LEASE DESIGNATION AND SERIA	L NUMBER:
UO 01194 ST	
3. IF INDIAN, ALLOTTEE OR TRIBE N	IAME
7. UNIT or CA AGREEMENT NAME	
UTU63047A	

		E	oivisi	ON O	F OIL,	GAS	AND	MINING	3				LEASE DE			O SEF	RIAL NUME	BER:
WELI	COM	PLET	ION	OR F	RECC	MPL	ETIC	ON RE	POR	T ANI	DLOG	6. 1	F INDIAN	, ALLOTT	EE OR	TRIB	E NAME	
1a. TYPE OF WELL:		Oil Wi] {	GAS WELL	7]	DRY		OTHE	R			UTU6			VAME	,	· · · · · · · · · · · · · · · · · · ·
	HORIZ. LATS.	DE EN	EP-] [RE- NTRY []	DIFF. RESVR.		OTHE	R AME	ENDED		WELL NAI					
2. NAME OF OPERA KERR MC		L & GA	S OV	ISHOF	RE, L.F	۰.							43047		1	***************************************	an ann georgianag	
3. ADDRESS OF OF P.O.BOX 17		ÇI	ITY DE	NVER		STATE	СО	ZIP 802	217		NUMBER: 20) 929-6100		FIELD AN					
4. LOCATION OF W AT SURFACE:	•		NI 16	300 EW	/I 53F	TOS	D21E		- 2	 	***************************************	11.	QTR/QTI MERIDIA	R, SECTION: N:	ON, TO	MNSH	IIP, RANG	E,
AT TOP PRODUC									NL S3	5. T9S.	R21E	s	ENW	35	98	2	1E S	3
AT TOTAL DEPT										, ,			COUNTY			13.	STATE	UTAH
14. DATE SPUDDED 4/8/2011		5. DATE T. 6/1/20		CHED:	16. DATI 8/2/	E COMPL 2011	ETED:	A	BANDONE	:D 🔲	READY TO PRODU		17. ELE	VATION: 105 G		KB, R	₹T, GL):	***************************************
18. TOTAL DEPTH:	0,0			19. PLUG	BACK T.E				20. IF M	ULTIPLE C	OMPLETIONS, HOV	V MANY? *		PTH BRIE		MD		## District Company
22. TYPE ELECTRIC	TVD 9,8		ICAL LO	GS RUN (Submit cor		9,746	··· · · · · · · · · · · · · · · · · ·	<u> </u>	23.			<u> </u>		-	rvd		
RCBL-CHI 1	TRIPLE (СОМВО	O-RM	ITE						WAS DST	L CORED? RUN? NAL SURVEY?		✓	YES TYES TYES	(S	ubmit	t analysis) t report) : copy)	
24. CASING AND LI	NER RECOR	D (Report a	all string	s set in w	ell)								- In-rest					1000 aliana
HOLE SIZE	SIZE/GRA	ADE	WEIGHT (#ft.) TOP (MD) BOTTOM (MD) STAGE CEMENTER DEPTH CEMENT TYPE & SLURRY VOLUME (BBL) CEMENT TOP (MD) CEMENT TOP (MD)											NT TOP	**	AMOUNT	PULLED	
20" 14" STL 36.7# 40 28																		
	11" 8 5/8" IJ-55 28# 2,626 650 0																	
7 7/8"		I-80	11.					437			1,510			(390			
7 7/8"	4 1/2" F	2110	11.	6#	9,4	37	9,8	379				 						
*************************************												 			*****			
25. TUBING RECOR	L RD		·					<u>.</u>			<u> </u>	<u> </u>						
SIZE	DEPTH S	SET (MD)	PACK	ŒR SET (I	MD)	SIZE		DEPTH	SET (MD)	PACKE	R SET (MD)	SIZE		DEPTH SI	T (MD)	T	PACKER S	SET (MD)
2 3/8"	9,1	198													/	1	, , , , , , , , , , , , , , , , , , , ,	
26. PRODUCING IN									- 1	7. PERFO	RATION RECORD							
FORMATION		TOP	<u> </u>	вотто		TOP	(TVD)	BOTTOM	(TVD)	INTERVA	L (Top/Bot - MD)	SIZE	NO. HO	ES	PERF	ORA	TION STA	TUS
(A) WASATC			186		188					7,486	7,488	0.36	8	Ор	en 🗸	s	queezed	
(B) MESAVE	RDE	/,5	558	9,	750					7,558	9,750	0.36	184	Ор	en 🗸	S	queezed	
(C) (D)	····			-		 		<u> </u>						Ор			queezed	Ц
28. ACID, FRACTUR	RE TREATME	NT CEME	INT SOL	EEZE ET	,	<u> </u>		<u> </u>			"			Ор	en	S	queezed	
	INTERVAL	-141, OLINE	111300	LLEL, LI	<i>,</i> .				AMO	LINT AND T	YPE OF MATERIAL							
7486 - 9750			PH	1P 900	5 BB	1 2 21	ICK H	120 8 1			30/50 OTTAL	N/A CAI	VD.			····		
. 100 0,00										ATTA		VA SAI	ND					
			1					011 011		7 (1 17 (01160							
29. ENCLOSED AT	FACHMENTS:	:	-					*****		· · · · · · · · · · · · · · · · · · ·					30. W	ELL S	TATUS:	v
=	RICAL/MECHA			CEMENT	VERIFICA	ATION		GEOLOGIO		=	DST REPORT	DIREC	TIONAL S	URVEY		Ρ	ROE)

24	INSTIAL	DRAD	LICTION

INTERVAL A (As shown in Item #26)

					7							
DATE FIRST PR	ODUCED:	TEST DA			HOURS TESTED		TEST PRODUCTION	V OIL - BBL:	GAS - MCF:	WATER -	- BBL:	PROD. METHOD:
8/2/2011		8/3/2	011] 2	24	RATES: →	0	2,637	1.0	83	FLOWING
CHOKE SIZE:	TBG, PRES	S. CSG. PR	ESS. API O	GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTIO	N OII - BBI	GAS - MCF:	WATER -		INTERVAL STATUS:
20/64	1,863						RATES: →	0	2,637	1,0		PROD
					INT	ERVAL B (As sho	wn in item #26)			.,,,,		
DATE FIRST PR	ODUCED:	TEST DA	TE:		HOURS TESTED);	TEST PRODUCTION	V OIL - BBL:	GAS MCF:	WATER -	- BBI	PROD. METHOD:
]			•		RATES: →		0.10 1.1101	I WALLER	· DUL.	PROB. METHOD.
CHOKE SIZE:	TBG. PRES	S. CSG. PR	ESS. API (GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	N OIL - BBL:	GAS - MCF:	WATER -	- BBL:	INTERVAL STATUS:
					INT	ERVAL C (As sho	wn in item #26)		<u>I</u>		******	<u> </u>
DATE FIRST PR	ODUCED:	TEST DA	TE:		HOURS TESTED):	TEST PRODUCTION	V OIL – BBL:	GAS - MCF:	WATER -	DDI -	PROD. METHOD:
							RATES: →	OIL - DDL.	0A0 - INOF.	WIEK-	- DDL.	PROD. WETHOD:
CHOKE SIZE:	TBG. PRES	S. CSG. PR	ESS. API 0	SRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION	N OIL – BBL:	GAS - MCF:	WATER -	- BBL:	INTERVAL STATUS:
							RATES: →					
					inti	ERVAL D (As sho	wn in item #26)					
DATE FIRST PR	ODUCED:	TEST DA	TE:		HOURS TESTED):	TEST PRODUCTION	OIL - BBL:	GAS - MCF:	WATER -	- BBL:	PROD. METHOD:
					ŀ		RATES: →		1	1		
CHOKE SIZE:	TBG. PRES	S. CSG. PR	ESS. API 0	BRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION	N OIL - BBL:	GAS - MCF:	WATER -	- BBL:	INTERVAL STATUS:
							RATES: →	l		1		
32. DISPOSITIO	ON OF GAS (S	Sold, Used for I	uel, Vented, I	Etc.)				and the second s				
												
33. SUMMARY	OF POROUS	ZONES (Includ	le Aquifers):					34. FORMATION	(Log) MARKERS:	1000		
						tests, including de	pth interval					
tested, cushion t	used, time tool	l open, flowing a	ind shut-in pres	ssures and r	recoveries.							
			T	-								
Formation	on	Top (MD)	Bottom (MD)		Descript	ions, Contents, etc	.		Name		(1	Top Aeasured Depth)
						****			The state of the s		,,	model of Dopery
GREEN R	WED	1,607					į					
	- 1											
BIRD'S N		1,874										
MAHOGA	NY	2,429										
WASATC	H	4,884	7,543									
MESAVER	RDE	7.543	9,905	TD								

35. ADDITIONAL REMARKS (include plugging procedure)

The first 210'of the surface hole was drilled with a 12 %" bit. The remainder of surface hole was drilled with an 11" bit. Attached is the chronological well history, perforation report & final survey.

26	I hereby certify that the forego	 mai attantan	 	 	

NAME (PLEASE PRINT) ANDREW LYTLE

TITLE REGULATORY ANALYST

DATE 10/24/2011

This report must be submitted within 30 days of

- · completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

** ITEM 24: Cement Top - Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to:

SIGNATURE

Utah Division of Oil, Gas and Mining

1594 West North Temple, Suite 1210

Box 145801

Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

^{*} ITEM 20: Show the number of completions if production is measured separately from two or more formations.

AMENDED REPORT STATE OF UTAH FORM 8 DEPARTMENT OF NATURAL RESOURCES (highlight changes) DIVISION OF OIL, GAS AND MINING 5. LEASE DESIGNATION AND SERIAL NUMBER: UO 01194 ST 6. IF INDIAN, ALLOTTEE OR TRIBE NAME WELL COMPLETION OR RECOMPLETION REPORT AND LOG 7. UNIT or CA AGREEMENT NAME 1a. TYPE OF WELL: GAS V DRY OTHER UTU63047A 8. WELL NAME and NUMBER: b. TYPE OF WORK: NBU 921-35C4CS DIFF. RESVR. RE-ENTRY OTHER 9. API NUMBER: 2. NAME OF OPERATOR: 4304751351 KERR MCGEE OIL & GAS ONSHORE, L.P. 3. ADDRESS OF OPERATOR: 10 FIELD AND POOL, OR WILDCAT PHONE NUMBER: STATE CO ZIP 80217 NATURAL BUTTES (720) 929-6100 P.O.BOX 173779 CITY DENVER 11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: 4. LOCATION OF WELL (FOOTAGES) AT SURFACE: SENW 1686 FNL 1699 FWL S35, T9S, R21E SENW 35 9S 21E S AT TOP PRODUCING INTERVAL REPORTED BELOW: NENW 1170 FNL 2134 FWL S35, T9S, R21E 12 COUNTY 13. STATE AT TOTAL DEPTH: NENW 1179 FNL 2159 FWL S35, T9S, R21E UTAH UINTAH 17. ELEVATIONS (DF, RKB, RT, GL): 15. DATE T.D. REACHED: 16. DATE COMPLETED: 14. DATE SPUDDED: READY TO PRODUCE 🗸 ABANDONED | 5105 GL 6/1/2011 4/8/2011 8/2/2011 19. PLUG BACK T.D.: MD 9.834 21. DEPTH BRIDGE 18. TOTAL DEPTH: MD 9.905 20. IF MULTIPLE COMPLETIONS, HOW MANY? 1 PLUG SET: TVD TVD 9.817 TVD 9.746 22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each) NO 🔽 WAS WELL CORED? YES (Submit analysis) RCBL-CHI TRIPLE COMBO-RMTE WAS DST RUN? NO 🔽 YES (Submit report) DIRECTIONAL SURVEY? NO YES 🔽 (Submit copy) 24. CASING AND LINER RECORD (Report all strings set in well) STAGE CEMENTER **CEMENT TYPE &** SLURRY CEMENT TOP ** AMOUNT PULLED BOTTOM (MD) HOLE SIZE SIZE/GRADE WEIGHT (#/ft.) TOP (MD) DEPTH NO. OF SACKS VOLUME (BBL) 28 20" 14" STL 36.7# 40 0 28# 2,626 650 11" 8 5/8" **IJ-55** 390 7 7/8" 4 1/2' 1-80 11.6# 9,437 1,510 7 7/8" 9.437 9,879 11.6# 4 1/2" P110 25. TUBING RECORD PACKER SET (MD) PACKER SET (MD) SIZE DEPTH SET (MD) PACKER SET (MD) SIZE DEPTH SET (MD) DEPTH SET (MD) SIZE 2 3/8" 9.198 27. PERFORATION RECORD 26. PRODUCING INTERVALS BOTTOM (TVD) INTERVAL (Top/Bot - MD) SIZE NO. HOLES PERFORATION STATUS FORMATION NAME TOP (MD) BOTTOM (MD) TOP (TVD) 7.486 7,488 0.36 8 Open Squeezed 7,486 7,488 (A) WASATCH 9,750 0.36 184 9,750 7,558 Open Squeezed **MESAVERDE** 7.558 (B) Open Squeezed (C) Open Squeezed (D) 28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC. AMOUNT AND TYPE OF MATERIAL DEPTH INTERVAL PUMP 8864 BBLS SLICK H2O & 171,979 LBS SAND 7486 - 9750 DIV OF OIL, GAS & MINING 30. WELL STATUS: 29. ENCLOSED ATTACHMENTS: ✓ DIRECTIONAL SURVEY GEOLOGIC REPORT DST REPORT ELECTRICAL/MECHANICAL LOGS PROD OTHER: SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION CORE ANALYSIS

31. INITIAL PRO	ODUCTION					INT	ERVAL A (As sho	wn in item #26)						
DATE FIRST PR 8/2/2011			TEST DA 8/3/2			HOURS TESTED		TEST PRODUCTION RATES: →	NC	OIL BBL:	GAS - MCF: 2,637	WATER -		PROD. METHOD: FLOWING
сноке size: 20/64	твс. PRE 1,86		csg. pr 2,52		PI GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	ON	OIL ~ BBL:	GAS – MCF: 2,637	WATER - 1,08		INTERVAL STATUS PROD
						INT	ERVAL B (As sho	wn in item #26)						
DATE FIRST PR	ODUCED:		TEST DA	TE:		HOURS TESTED	D ;	TEST PRODUCTION RATES: →	ON	OIL - BBL:	GAS - MCF:	WATER -	BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRE	SS.	CSG. PR	ESS. A	PI GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION PATES: →	ON	OIL BBL:	GAS - MCF:	WATER -	BBL:	INTERVAL STATUS
		•				INT	ERVAL C (As sho	wn in item #26)						
DATE FIRST PR	ODUCED:		TEST DA	TE:		HOURS TESTER) ;	TEST PRODUCTION RATES: →	ON	OIL - BBL:	GAS - MCF:	WATER -	BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRE	SS.	CSG. PR	ESS. A	PI GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →		OIL BBL:	GAS – MCF:	WATER -	BBL:	INTERVAL STATUS
	· *					INT	ERVAL D (As sho	wn in item #26)				, · · · · · · · · · · · · · · · · · · ·		' ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
DATE FIRST PR	ODUCED:		TEST DA	TE:				TEST PRODUCTION RATES: →	ON	OIL - BBL:	GAS - MCF:	WATER -	BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRES	SS.	CSG. PRI	ESS. A	PI GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →		OIL – BBL:	GAS MCF:	WATER - BBL:		INTERVAL STATUS
32. DISPOSITIO	N OF GAS (Sold, U	sed for F	uel, Vente	d, Etc.)					<u> </u>	—— — —————————————————————————————————			
33. SUMMARY	OF POROUS	ZONE	S (Include	e Aquifers):	• •			34	. FORMATION	(Log) MARKERS:			***************************************
Show all importatested, cushion u							ı tests, including de	pth interval						
Formation	on		op (ID)	Botton (MD)		Descript	tions, Contents, etc	i.		***************************************	Name		4)	Top Measured Depth)
GREEN RI BIRD'S NE MAHOGAI WASATCH MESAVER	EST NY H	1,8 2,4 4,8	607 874 429 884 543	7,54 9,90								·		

35. ADDITIONAL REMARKS (include plugging procedure)

The first 210'of the surface hole was drilled with a 12 ½" bit. The remainder of surface hole was drilled with an 11" bit. Attached is the chronological well history, perforation report & final survey.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) ANDREW LYTLE
SIGNATURE

THE REGULATORY ANALYST

DATE 9/2/2011

This report must be submitted within 30 days of

- completing or plugging a new well
- · drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

** ITEM 24: Cement Top - Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining

1594 West North Temple, Suite 1210

Box 145801

Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

^{*} ITEM 20: Show the number of completions if production is measured separately from two or more formations.

Operation Summary Report

					perai	.1011 0	umm	ily Kepoit
Well: NBU 921	1-35C4C	S [YELLO	W]	Spud Co	onductor	: 4/8/20	11	Spud Date: 4/15/2011
Project: UTAH-UINTAH				Site: NB	U 921-3	5F2 PA)	Rig Name No: ENSIGN 139/139, PROPETRO 11/11
Event: DRILLII	NG			Start Da	te: 3/29/	2011		End Date: 6/3/2011
Active Datum: Level)	RKB @5	,119.00ft	(above Mear	Sea	UWI: S	E/NW/0	/9/S/21/E	/35/0/0/26/PM/N/1686/W/0/1699/0/0
Date	A Company of the Comp	Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (ft)
4/15/2011	0:00	- 0:30	0.50	MIRU	01	С	Р	MOVE RIG IN OFF THE NBU 921-35E2AS
	0:30	- 1:00	0.50	MIRU	01	В	P	RIG UP PREPARE TO SPUD SURF. HOLE
	1:00	- 1:30	0.50	DRLSUR	06	Α	P	P/U 1.83 DEG BENT HOUSING HUNTING MTR SN 8014 . 7/8 LOBE .17 RPM. M/U 12.25" Q507 SN 7133231 3RD RUN, W/ 7-18'S. INSTALL RUBBER

Level) Date	Time Stert-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
4/15/2011	0:00 - 0:30	0.50	MIRU	01	С	Р		MOVE RIG IN OFF THE NBU 921-35E2AS
	0:30 - 1:00	0.50	MIRU	01	В	P		RIG UP PREPARE TO SPUD SURF. HOLE
	1:00 - 1:30	0.50	DRLSUR	06	Α	Р		P/U 1.83 DEG BENT HOUSING HUNTING MTR SN 8014 . 7/8 LOBE .17 RPM. M/U 12.25" Q507 SN 7133231 3RD RUN, W/ 7-18'S. INSTALL RUBBER
	1:30 - 3:00	1.50	DRLSUR	02	В	į P		SPUD SURFACE 04/15/2011 @ 01:30 HRS. DRILL 12.25" SURFACE HOLE F/40'-210' (170' @ 113'/HR) PSI ON/ OFF 690/410, UP/ DOWN/ ROT 27/22/25. 500 GPM, 45 RPM ON TOP DRIVE, 15-18K WOB
	3:00 - 5:00	2.00	DRLSUR	06	Α	Р		TOH,L/D 12 1/4" SURF. BIT,M/U Q506 11" SURF. BIT,P/U DIR. TOOLS & SCRIBE,TIH T/210'
	5:00 - 15:00	10.00	DRLSUR	02	D	P	:	DRILL/ SLIDE 11" SURFACE HOLE F/ 210'-1070' (190' @ 86'/HR) PSI ON/ OFF 1300/1070, UP/ DOWN/ ROT 59/51/53 136 SPM, 532 GPM, 18-22K WOB, 45 RPM ON TOP DRIVE,90 RPM ON MM, CIRC RESERVE PIT
	15:00 - 15:30	0.50	DRLSUR	07	Α	₽		SERVICE RIG
	15:30 - 0:00	8.50	DRLSUR	02	D	įΡ		DRILL/ SLIDE 11" SURFACE HOLE F/1070'-1820' (750' @ 88'/HR) PSI ON/ OFF 1620/1360, UP/ DOWN/ ROT 72/52/61 136 SPM, 532 GPM, 18-22K WOB, 45 RPM ON TOP DRIVE,90 RPM ON MM, CIRC RESERVE PIT
4/16/2011	0:00 - 5:30	5.50	DRLSUR	02	D	Р	,	DRILL/ SLIDE 11" SURFACE HOLE F/1820'-2300' (480' @ 87'/HR) PSI ON/ OFF 1670/1380, UP/ DOWN/ ROT 82/56/69 136 SPM, 532 GPM, 18-22K WOB, 45 RPM ON TOP DRIVE,90 RPM ON MM, CIRC RESERVE PIT
	5:30 - 11:00	5.50	DRLSUR	02	D	Р		DRILL/ SLIDE 11" SURFACE HOLE F/2300'-2650' (350' @ 64'/HR) PSI ON/ OFF 1700/1530, UP/ DOWN/ ROT 83/63/70 136 SPM, 532 GPM, 18-22K WOB, 45 RPM ON TOP DRIVE,90 RPM ON MM, CIRC RESERVE PIT(TD SURF.11" DIR. SURF. HOLE)
	11:00 - 13:00	2.00	DRLSUR	05	С	P		CIRC & COND HOLE F/L/D & 8 5/8" 28# SURF. CSG RUN
	13:00 - 17:00	4.00	DRLSUR	06	D	Р		L/D DRILL STRING,11" BHA & DIR TOOLS
	17:00 - 18:00	1.00	CSG	12	Α	P		R/U T/RUN 8 5/8" 28# SURF. CSG
	18:00 - 20:00	2.00	CSG	12	С	Р		HOLD SAFTEY MEETING,RUN FLOAT SHOE ,SHOE JNT,BAFFLE & 40 JNTS 8 5/8" 28# LT&C SURF. CSG
	20:00 - 22:00	2.00	ALL	08	Α	X		RETURN HYDRAULIC HOSE ON TOP HEAD HUNG UP IN DERRICK & PULLED INTO,WAIT ON NEW HYDRAUILIC HOSE FROM SHOP,REPLACE HYDRAULIC HOSE(CIRC 8 5/8" 28 # SURF CSG DURING REPAIR TIME)
	22:00 - 23:00	1.00	CSG	12	С	P		CONT T/RUN THE LAST 19 JNTS 8 5/8" 28# LT&C SURF. CSG W/THE SHOE SET@ 2616' & THE BAFFLE @ 2570'
	23:00 - 0:00	1.00	CSG	12	A	Р		RUN 200' 1" PIPE DOWN ANNULUS,R/U PRO PETRO CEMENTING EQUIP

8/19/2011 2:56:10PM

Operation Summary Report

Well: NBU 921	-35C4CS [YELLC	W]	Spud Co	onductor	: 4/8/201	1	Spud Date: 4/15/2011
Project: UTAH	-UINTAH		Site: NB	U 921-3	5F2 PAD	l	Rig Name No: ENSIGN 139/139, PROPETRO
Event: DRILLII	NG		Start Da	te: 3/29/2	2011		End Date: 6/3/2011
Active Datum: Level)	RKB @5,119.00ft	(above Mean	Sea	UWI: S	E/NW/0/9	9/S/21/E	/35/0/0/26/PM/N/1686/W/0/1699/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (ft)
4/17/2011	0:00 - 1:00 1:00 - 1:30	1.00	CSG	12	E	P	HOLD SAFETY MEETING. PSI TEST TO 2000 PS PUMP 85 BBLS OF 8.4# H20 AHEAD. FULL CIRC. PUMP 20 BBLS OF 8.4# GEL WATER AHEAD. FULL CIRC. PUMP 200 SX(136.1 BBLS) 11# 3.82 YIELD LEAD CEMENT, PUMP 200 SX (41 BBLS) OF 15.8# 1.15 YIELD TAIL(2% CALC, 1/4# /SK OF FLOCELE). DROP PLUG ON FLY AND DISPLACE W/159 BBLS OF 8.4# H20.FULL CIRC. THRU OUT JOB, FINAL LIFT PRESS. 570 PSI, BUMP PLUG AND HOLD 1070 PSI FOR 5 MIN. FLOAT HELD,28 BBLS LEAD CEMENT TO SURF.,CEMENT FELL BACK
							CLASS "G" CEMENT W/4% CACL2 & 1/4#/SK FLOCELE,NO CEMENT TO SURF.
	1:30 - 3:00	1.50	CSG	13	Α	P	WAIT ON CEMENT
	3:00 - 3:30	0.50	CSG	12	F	P	TOP OUT W/125 SKS 15.8 PPG CLASS "G" CEMENT W/4% CACL2 & 1/4#/SK FLOCELE, CEMENT TO SURF.(RELEASE RIG @ 03:30 04/17/2011)
	3:30 - 3:30	0.00	CSG				CONDUCTOR CASING: Cond. Depth set: 40' Cement sx used: 28
							SPUD DATE/TIME: 04/15/2011 01;30
5/26/2011	23:00 - 0:00	1.00	MIRU	01	C	Ρ	SURFACE HOLE: Surface From depth: 40' Surface To depth: 2650' Total SURFACE hours: 31.00 Surface Casing size: 8 5/8" # of casing joints ran: 59 Casing set MD: 2616' # sx of cement: 200/200/250 Cement blend (ppg:) 11.0/15.8/15.8 Cement yield (ft3/sk): 3.82/1.15/1.15 # of bbls to surface: Describe cement issues: NONE Describe hole issues: NONE R/D & SKID ON TO NBU-921-35C4CS
5/27/2011	0:00 - 1:00	1.00	DRLPRO	14	Α	Р	N/U B.O.P'S & FLARE LINES
	1:00 - 2:30	1.50	DRLPRO	09	Α	P	CUT DRILL LINE
	2:30 - 6:00	3.50	DRLPRO	15	Α	Р	TEST B.O.P'S - BLINDS - PIPE - 2" - 4" VALVES - HCR - CHOKE MAINFOLD 250 LOW - 5000 HIGH - ANNULAR 250 LOW - 2500 HIGH & CASING TO 1500 PSI
	6:00 - 7:00	1.00	DRLPRO	06	Α	P	LOAD RACKS W/ BHA & DONE PRE SPUD INSPECTION
	7:00 - 11:30	4.50	DRLPRO	06	Α	P	P/U DIR TOOLS & T.I.H
	11:30 - 12:30	1.00	DRLPRO	07	В	Р	LEVEL RIG OVER CENTER HOLE
	12:30 - 14:30	2.00	DRLPRO	06	Α	Р	CONT. T.I.H & TAG CEMENT @ 2502
	14:30 - 16:00	1.50	DRLPRO	02	F	Р	DRILL SHOE TRACK
5/28/2011	16:00 - 0:00 0:00 - 11:00	8.00 11.00	DRLPRO DRLPRO	02	D D	P	DIR DRILL F/ 2660 TO 3665 = 1005',AVG 125.6 ,WOB 15/18,RPM 42/151,STKS 110,GPM 540,PSI 1100/1400,TORG 3/7K,SLIDE 8% /100', - MW 8.4 VIS 26,CIRC RES PIT DIR DRILL F/ 3665 TO 5020 = 1355',AVG 123.1
0,20,2011	11.00	11.00	J. 11.0	V4		1	,WOB 15/18,RPM 42/151,STKS 110,GPM 540,PSI 1400/1750 ,TORG 5/8K,SLIDE 7% /95', - MW 8.4 VIS 26,CIRC RES PIT

8/19/2011 2:56:10PM

Operation Summary Report

Spud Conductor: 4/8/2011 Spud Date: 4/15/2011 Well: NBU 921-35C4CS [YELLOW] Rig Name No: ENSIGN 139/139, PROPETRO 11/11 Project: UTAH-UINTAH Site: NBU 921-35F2 PAD Event: DRILLING Start Date: 3/29/2011 End Date: 6/3/2011

UWI: SE/NW/0/9/S/21/E/35/0/0/26/PM/N/1686/W/0/1699/0/0 Active Datum: RKB @5.119.00ft (above Mean Sea

Active Datum: Level)	RKB @5,119.	00ft (above Me	an Sea	UWI: SE/NW/0/9/S/21/E/35/0/0/26/PM/N/1686/W/0/1699/0/0					
Date	Time	Duration	Phase	Code	Sub	P/U	MD From	Operation	
	Start-En	d (hr)		1	Code		(ft)		
	11:00 - 11		DRLPRO	07	Α	Р		SER RIG	
	11:30 - 0:		DRLPRO	02	D	P		DIR DRILL F/ 5020 TO 6504 = 1484',AVG 118.72 ,WOB 15/18,RPM 42/151,STKS 110,GPM 540,PSI 1400/1750 ,TORG 5/8K,SLIDE 0% /0', - MW 8.4 VIS 26,CIRC RES PIT	
5/29/2011	0:00 - 11		DRLPRO	02	D	P		DIR DRILL F/ 6504 TO 7238 = 734',AVG 66.7 ,WOB 15/18,RPM 42/151,STKS 110,GPM 540,PSI 1400/1750 ,TORG 5/8K,SLIDE 1% /10', - MW 8.4 VIS 26,CIRC RES PIT	
	11:00 - 11		DRLPRO	07	Α	Р		SER RIG	
	11:30 - 0:	00 12.50	DRLPRO	02	D	P		DIR DRILL F/ 7238 TO 7864 = 626',AVG 50.08 ,WOB 15/18,RPM 42/151,STKS 105,GPM 514 ,PSI 11750/2050 ,TORG 5/8K,SLIDE 0% /0', - MW 8.4 VIS 26,CIRC RES PIT & MUD UP SYSTEM DO TO LOSES - 36 VIS - MW 10.4 LCM 10%	
5/30/2011	0:00 - 10		DRLPRO	02	D	Р		DIR DRILL F/ 7864 TO 8370 = 506',AVG 48.1 ,WOB 15/18,RPM 42/144,STKS 105,GPM 514 ,PSI 1850/2150 ,TORG 5/8K,SLIDE 6% /30', MW 11.3 VIS 39 LCM 15%	
	10:30 - 11		DRLPRO	07	Α	Р		SER RIG	
	11:00 - 0:	00 13.00	DRLPRO	02	D	Р		DIR DRILL F/ 8370 TO 8980 = 610',AVG 46.9 ,WOB 15/18,RPM 42/144,STKS 95,GPM 465 ,PSI 2150/2450 ,TORG 5/8K,SLIDE 6% /36', MW 11.8 VIS 39 LCM 20%	
5/31/2011	0:00 - 7:	7.00	DRLPRO	02	D	Р		DIR DRILL F/ 8980 TO 9185 = 205',AVG 29.2 ,WOB 18/23,RPM 42/130,STKS 95,GPM 465 ,PSI 2150/2450 ,TORG 5/8K,SLIDE 0% /0', MW 11.9 VIS 45 LCM 20%	
	7:00 - 17	10.00	DRLPRO	06	Α	Р		T.F.N.B - PULL ONE STANDS W/ PUMP & ROT - PULL 3 MORE STANDS (NO PUMP OR ROT) & OVER 45/50 K - CONT T.O.H - BACKREAM SPOTS @ 5600 TO 5620 - 4874 TO 4725 - 4627 TO 4561 & 4380 TO 4289 CONT T.O.H L/D MOTOR & BIT	
	17:00 - 19	30 2.50	DRLPRO	06	Α	P		P/U MOTOR & BIT & T.I.H	
	19:30 - 20	:30 1.00	DRLPRO	07	В	Р		LEVEL DERRICK OVER CENTER HOLE	
	20:30 - 0:		DRLPRO	06	Α	Р		CONT T.I.H & FILL PIPE @ SHOE & REAM OUT TIGHT SPOT @ 5600 TO 5620 - CONT T.I.H	
6/1/2011	0:00 - 2:		DRLPRO	06	Α	Р		CONT T.I.H & REAM OUT TIGHT SPOT @ 8842 TO 8870 - T.I.H & WASH TO BTM (NO FILL)	
	2:00 - 12		DRLPRO	02	D	Р		DIR DRILL F/ 9185 TO 9734 = 549',AVG 54.9/ ,WOB 18/23,RPM 42/71,STKS 90,GPM 441 ,PSI 2150/2450 ,TORG 5/8K,SLIDE 2% /12', MW 11.9 VIS 45 LCM 18%	
	12:00 - 12:		DRLPRO	07	Α	Р		SER RIG	
	12:30 - 16:		DRLPRO	02	D	P		DIR DRILL F/ 9734 TO 9905 = 171',AVG 48.8/ ,WOB 18/23,RPM 42/71,STKS 90,GPM 441 ,PSI 2150/2450 ,TORG 5/8K,SLIDE 0% /0', MW 12.2- VIS 45 LCM 19%	
	16:00 - 18:		DRLPRO	05	Α	P		CIRC BTM UP & LOST CIRC 1/2 RETURNS & RAISE LCM TO 28% & LOST 100 BBLS TOTAL	
	18:00 - 20:		DRLPRO	06	Ε	P		WIPER TRIP 15 STANDS	
0.10.17.5	20:00 - 0:0		DRLPRO	05	A	Р		CIRC BTM UP- HAD 50 BBL GAIN SHUT IN WELL CIRC OUT GAS - MUD CUT F/ 12.3 TO 11.1 - & RAISED MUD WT TO 12.5 & LCM 30%	
6/2/2011	0:00 - 4:0		DRLPRO	05	A	Р		CIRC OUT GAS & RAISE MW F/ 12.5 TO 12.8 & LCM 32%	
	4:00 - 14:		DRLPRO	06	D	Р		PULL 10 STANDS & MONITOR WELL & PUMP DRY JOB & CONT.T.O.H & L/D MOTOR & BIT	
	14:00 - 14:	30 0.50	DRLPRO	14	В	P		PULL WEAR BUSHING	

8/19/2011 2:56:10PM

Well: NBU 92	1-35C4CS	[YELLOV	V]	Spud Co	nductor	: 4/8/2011	Spud [Date: 4/15/2011
Project: UTAH	I-UINTAH			Site: NB	U 921-3	5F2 PAD		Rig Name No: ENSIGN 139/139, PROPETRO
Event: DRILLI	NG			Start Dat	te: 3/29/	2011		End Date: 6/3/2011
Active Datum: Level)	RKB @5,	119.00ft (above Mean	Sea	UWI: S	E/NW/0/9	/S/21/E/35/0/0/2	26/PM/N/1686/W/0/1699/0/0
Date	The second secon	ime t-End	Duration (hr)	Phase	Code	Sub Code	P/U MD F	: 20mm - 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
	14:30	- 0:00	9.50	DRLPRO	12	С	Р	HELD S/M & R/U FRANKS CSG CREW & RUN 4.0 PROD CSG - 235 JTS PLUS 2 MARKERS - SHOE SET @ 9879 F/C SET @ 9836
6/3/2011	0:00	- 1:00	1.00	DRLPRO	12	С	Р	CONT RUNNING 4.5 PROD CASING
	1:00	- 2:00	1.00	DRLPRO	05	Α	P	CIRC BTM UP
	2:00	- 4:30	2.50	DRLPRO	12	E	P	HELD S/M & R/U BJ SER & TESTED LINES 5,000 PSI & PUMP 40 BBLS SPACER,510 SKS LEAD #12.1 2.17 YLD,1000 SKS TAIL #14.3 - 1.31 YLD DISPLACE 153 BBLS CLAYFIX,FINAL LIFT

PRESSURE ???? PSI,BUMP PLUG 500 OVER,FLOATS HELD & GOT BACK TO PIT 10

N/D B.O.P'S & SET C-22 SLIPS ON CSG @ 100 K, ,RUFF-CUT 4 1/2 CSG & CLEAN OUT MUD TANKS

& RELEASED RIG ON 6/3/2011 @ 10:00 HRS

BBLS OF WATER

8/19/2011 2:56:10PM

4:30 - 10:00

5.50

DRLPRO

	US ROCKIES R	EGION
	Operation Summa	ary Report
Well: NBU 921-35C4CS [YELLOW]	Spud Conductor: 4/8/2011	Spud Date: 4/15/2011
Project: UTAH-UINTAH	Site: NBU 921-35F2 PAD	Rig Name No: ENSIGN 139/139, PROPETRO
Event: DRILLING	Start Date: 3/29/2011	End Date: 6/3/2011
Active Datum: RKB @5,119.00ft (above Mear		/35/0/0/26/PM/N/1686/W/0/1699/0/0
Level)		
Date Time Duration Start-End (hr)	Phase Code Sub P/U Code	MD From Operation (ft)
10:00 - 10:00 0.00	DRLPRO	CONDUCTOR CASING:
		Cond. Depth set: 40 Cement sx used: 28
		SPUD DATE/TIME: 4/15/2011 1:30
		SURFACE HOLE: Surface From depth: 40
		Surface To depth: 2,650
		Total SURFACE hours: 31.00 Surface Casing size: 8 5/8
		# of casing joints ran: 59
		Casing set MD: 2,616.0 # sx of cement: 650
		Cement blend (ppg:) 15.8
		Cement yield (ft3/sk): 1.15
		# of bbls to surface: Describe cement issues: NA
		Describe hole issues: NA
		PRODUCTION:
		Rig Move/Skid start date/time: 5/26/2011 23:00
		Rig Move/Skid finish date/time: 5/27/2011 0:00 Total MOVE hours: 1.0
		Prod Rig Spud date/time: 5/27/2011 16:00
		Rig Release date/time: 6/3/2011 10:00 Total SPUD to RR hours:162.0
		Planned depth MD 9,880
		Planned depth TVD 9,794 Actual MD: 9,905
		Actual MD: 9,905 Actual TVD: 9,819
		Open Wells \$
		AFE \$: Open wells \$/ft:
		·
		PRODUCTION HOLE: Prod. From depth: 2,660
		Prod. To depth: 9,905
•		Total PROD hours: 99
		Log Depth: 0 Float Collar Top Depth: 9848
		Production Casing size: 4 1/2
		# of casing joints ran: 237 Casing set MD: 9,891.0
		Stage 1
		# sx of cement: 510 LEAD 1000 TAIL Cement density (ppg:) 12.2/14.3
		Cement density (ppg:) 12.2/14.3 Cement yield (ft3/sk): 2.23/1.31
		Stage 2
		# sx of cement: Cement density (ppg:)
		Cement yield (ft3/sk):
		Top Out Cmt
		# sx of cement: Cement density (ppg:)
		Cement yield (ft3/sk):
		Est. TOC (Lead & Tail) or 2 Stage : 0/4500 Describe cement issues: 5 BBLS TO SURFACE
		Describe hole issues:
		Describe hole issues: DIRECTIONAL INFO:
		Describe hole issues:

5 8/19/2011 2:56:10PM

	US ROCKIES Operation Sum	
Well: NBU 921-35C4CS [YELLOW]	Spud Conductor: 4/8/2011	Spud Date: 4/15/2011
Project: UTAH-UINTAH	Site: NBU 921-35F2 PAD	Rig Name No: ENSIGN 139/139, PROPETRO 11/11
Event: DRILLING	Start Date: 3/29/2011	End Date: 6/3/2011
Active Datum: RKB @5,119.00ft (above N Level)	Mean Sea UWI: SE/NW/0/9/S/2	1/E/35/0/0/26/PM/N/1686/W/0/1699/0/0
Date Time Durati Start-End (hr)		MD From Operation (ft)
Start-Life (iii)		Max dogleg MD: 2.70

8/19/2011 2:56:10PM 6

OpenWeils

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well Information

Well	NBU 921-35C4CS [YELLOW]		the state of the s
Common Name	NBU 921-35C4CS		
Well Name	NBU 921-35C4CS	Wellbore No.	ОН
Report No.	1	Report Date	7/18/2011
Project	UTAH-UINTAH	Site	NBU 921-35F2 PAD
Rig Name/No.		Event	COMPLETION
Start Date	7/18/2011	End Date	8/2/2011
Spud Date	4/15/2011	Active Datum	RKB @5,119.00ft (above Mean Sea Level)
UWI	SE/NW/0/9/S/21/E/35/0/0/26/PM/N/1686/W	//0/1699/0/0	

1.3 General

Contractor		Job Method	PERFORATE	Supervisor	
Perforated Assembly	PRODUCTION CASING	Conveyed Method	WIRELINE		

1.4 Initial Conditions

1.5 Summary

Fluid Type	Fluid Density	Gross Interval	7,486.0 (ft)-9,750.0 (ft)	Start Date/Time	7/25/2011	12:00AM
Surface Press	Estimate Res Press	No. of Intervals	37	End Date/Time	7/25/2011	12:00AM
TVD Fluid Top	Fluid Head	Total Shots	192	Net Perforation Interval		56.00 (ft)
Hydrostatic Press	Press Difference	Avg Shot Density	3.43 (shot/ft)	Final Surface Pressure		· · · · · · · · · · · · · · · · · · ·
Balance Cond NEUTR	AL			Final Press Date		

2 Intervals

2.1 Perforated Interval

Date Formation CCL@	CCL-T MD Top MD Base	Shot Misfires/	Diamete Carr Type /Carr Mar	nuf Carr Phasing Charge D	esc /Charge Charge Reason Misrun
Reservoir (ft)		Density Add. Shot	이 [18] 2일 시간 시간 시간 시간 작가 있는 것은 그 것은 그 것이 없는 것이 없다고 있다.	생물하는 이 마시 시간에 되는 이 등을 내려고 있습니다. 사람들은 생각하는 내가 하는 것 같은 사람들이 하면	ufacturer Weight
12:00AMWASATCH/	7,486.0 7,488.0		(in) 0.360 EXP/	(in) 3.375 90.00	(gram) 23.00 PRODUCTIO
<u> </u>	<u> </u>	in the second se			N

2.1 Perforated Interval (Continued)

Date	Formatio Reserve	ir (ft)	CCL-T S (ft)	(ft)	MD Base (ft)	Shot Density (shot/ft)	Misfires/ Add. Shot	r (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
12:00AN	MESAVERD	E/		7,558.0	7,560.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
12:00AN	MESAVERD		THE STREET OF STREET, S.	7,644.0	7,646.0	4.00		0.360	EXP/	3.375	90.00	THE PART OF THE PROPERTY OF THE PARTY OF THE	23.00	PRODUCTIO	d The configuration of the following super- configuration of the following super-
12:00AN	MESAVERD	E/	man from the highest than the	7,727.0	7,729.0	4.00	Contract the substitution of the substitution	0.360	EXP/	3.375	90.00	t nythid in thethologia, o mellellere (qua a capita y dan permepenaler i mis propressione esca e a	23.00	N PRODUCTIO N	
12:00AN	MESAVERD	E	analysis and him haven. In approach	7,785.0	7,787.0	4.00	A STATE OF THE PARTY OF THE PAR	0.360	EXP/	3.375	90.00	P. N. M. C. M. Budge (MAN), and the hydrolyses, hearing gapages as increasing	23.00	PRODUCTIO N	er , verdense i helt verge selverens verse i veger I
12:00AN	MESAVERD	<u> </u>	THE PARTY OF THE P	7,860.0	7,862.0	4.00	re-summer of the summer of	0.360	EXP/	3.375	90.00	от — от убротице богу произволите из применя ромента. Потого и военно и примен и	23.00	PRODUCTIO N	
12:00AN	MESAVERD	1964 - 1964 - 1964 - 1964 - 1964 - 1964 - 1964 - 1964 - 1964 - 1964 - 1964 - 1964 - 1964 - 1964 - 1964 - 1964 - El	and the companion of the party agency	8,008.0	8,009.0	3.00	Commences excesses a migration of a	0.360	EXP/	3.375	120.00	THE THE RESIDENCE OF THE PROPERTY OF THE PROPE	23.00	PRODUCTIO N	and the second s
12:00AN	IMESAVERD	E / :	to the state of th	8,050.0	8,051.0	4.00	CONTRACTOR OF THE PROPERTY AND A SECOND OF THE PROPERTY OF THE	0.360	EXP/	3.375	90.00	Art Philip I Novice and their mentions processed participation of particip	23.00	PRODUCTIO N	end commented and control of the con
12:00AN	MESAVERD	Ē/	ere no manage ago ne o ago	8,078.0	8,079.0	4.00	en e	0.360	EXP/	3.375	90.00	ordinanti ya maka managa kuji inggani yukuna kuji ujipana yangan maka a	23.00	PRODUCTIO N	Today - regular security a year case
12:00AN	MESAVERD	Ē	one (weeks one	8,101.0	8,102.0	4.00	era in a de l'Autoria de l'Arra de l	0.360	EXP/	3.375	90.00	memmer i teknisi ning saja saja saja saja saja saja na ning ning ning saja saja saja saja saja saja saja saj	23.00	PRODUCTIO	Andrew Company - No -e se alem - An
12:00AN	MESAVERD	E	described and a commission of the first section of the commission	8,169.0	8,170.0	3.00	AND AND PROPERTY COMES AND FOR AN EAST STOCK AT AN	0.360	EXP/	3.375	120.00	нетем — сърг. назращ, метянст сеголог разоватор, надъедено за съ	23.00	PRODUCTIO	
12:00AN	MESAVERD	E	The second second second second	8,185.0	8,186.0	3.00	ages produced and anyone programme of the first	0.360	EXP/	3.375	120.00	MET 1888 C.C. (Manufacture) — Congress dates engage (Congress Anna Congress	23.00	PRODUCTIO N	
12:00AN	MESAVERD		us misjon immercence or or side	8,229.0	8,230.0	3.00	es estant e les controls authorities des les	0.360	EXP/	3.375	120.00	стойнік. Мак і півсайт і певрай імерас _с уколиваю дуку ў радзейнаў.	23.00	PRODUCTIO N	· .
12:00AN	MESAVERD	<u></u>	e e may en en comme mariner, inser i i :	8,346.0	8,348.0	3.00	A PROBLEM POR A PROPERTY OF A PARTY OF THE P	0.360	EXP/	3.375	120.00	тембен ^{и.} Инс. постым на вейства интерест проставления, учен на начина на на	23.00	PRODUCTIO	er de service angus de propose personagemente de la companya de la
12:00AN	MESAVERD	I	e, go "per reger (per e recessor	8,380.0	8,382.0	3.00	ing comments and the street flowers	0.360	EXP/	3.375	120.00	officers toping and the radio and companioning growing company	23.00	PRODUCTIO N	e a Presi, se referen elsebili a cere su
12:00AN	MESAVERD		grande a sur a process destructivamente	8,448.0	8,450.0	3.00	odbertsbroken (* 1845) r († 1865) g	0.360	EXP/	3.375	120.00	Skar granger demokraterske en er bestelgeke den 11 en gebrûde - Virenbertske - Virenbertske	23.00	PRODUCTIO N	A commendation and the and industrial ray
12:00AN	IMESAVERD		Topone to the second se	8,550.0	8,552.0	3.00		0.360	EXP/	3.375	120.00	th address - minde in an indicate Mr. , and a resolution of the extreme indicates exercise devices.	23.00	PRODUCTIO N	A CONTRACTOR OF THE PARTY OF TH
12:00AN	MESAVERD	=		8,660.0	8,662.0	3.00	and a part of special residence and special residence in the special re	0.360	EXP/	3.375	120.00	a philipine () in may hay — Anniquebra religion () a se i se i se i sua prop. met Anniquebra () Anni e i se	23.00	PRODUCTIO N	
12:00AN	IMESAVERD		and provided a to the other section of	8,698.0	8,700.0	3.00	no menograpi ayan ayan karan baran saman a	0.360	EXP/	3.375	120.00	er (19 the ages company agence, company and age, a managementalism,	23.00	PRODUCTIO N	de la la reconstruir de la compania
12:00AM	MESAVERD		The state of the s	8,748.0	8,750.0	3.00		0.360	EXP/	3.375	120.00	ere det a comment appears, valer is person or interpreparational provincial accommendation of large series ,	23.00	PRODUCTIO N	in articles harmed and advantage of conferences of
12:00AM	MESAVERD	10,000,000,000,000,000,000,000,000,000,	ale come acces alone in the con-ac-	8,818.0	8,820.0	3.00	and age of and an addition of the second	0.360	EXP/	3.375	120.00	ter selekt kalender var kall i kalle selektivade til anderstavade tile som sel spang gyv	23.00	PRODUCTIO N	
12:00AN	IMESAVERD			8,980.0	8,981.0	4.00		0.360	EXP/	3.375	90.00	TOTAL TO SELECT COMMENTAL TO A TOTAL CONTRACT CO	23.00	PRODUCTIO N	e digina sampanananga a sagan mengaga B

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	(tt) CCL@	CCL-T MD Top S (ft)	(ft)	St. 507 307 W. 10.10	Misfires/ Diamete Carr Type /Carr Manuf Add. Shot r (in)	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
12:00AM	MESAVERDE/	:	9,022.0	9,023.0	3.00	0.360 EXP/	3.375	120.00	<u>and and a state of the constitution of the co</u>	23.00	PRODUCTIO	
12:00AM	MESAVERDE/		9,043.0	9,044.0	3.00	0.360 EXP/	3.375	120.00	manerales, committed a grégorie registable (, et l'égan gelonyage, galler, garge , parentes page, q	23.00	N PRODUCTIO N	
12:00AM	MESAVERDE/		9,110.0	9,111.0	4.00	0.360 EXP/	3.375	90.00	NN - 1-19-20 - 19-20-20-22 - Senatura del mentra del companio della companio della companio della companio del 	23.00	PRODUCTIO N	e ja mente represe reta presentante serre e e
12:00AM	MESAVERDE/	The Control of the Co	9,121.0	9,122.0	3.00	0.360 EXP/	3.375	120.00	MMAN MANASAMAN AND AND AND AND AND AND AND AND AND A	23.00	PRODUCTIO N	
	MESAVERDE/	CONTRACTOR OF AN ANAMALOUS AND AND AND AN AND AND AND ANAMALOUS ANAMALOUS AND ANAMALOUS AN	9,132.0	9,133.0	3.00	0.360 EXP/	3.375	120.00	1. С. Ф. т. 20. Ст. Започностично — и том и на учество ступ и трад проград прогосу		PRODUCTIO N	
Er Stroffisse as regge oblibel as a	MESAVERDE/		9,165.0	9,166.0	4.00	0.360 EXP/	3.375	90.00	CONTROL CONTROL MANAGEMENT CONTROL OF CONTRO	23.00	PRODUCTIO N	American Commission Commission
12:00AM	MESAVERDE/		9,240.0	9,241.0	4.00	0.360 EXP/	3.375	90.00	erretation of the employer is some up highlight days if generally underlying a color of coloring in 	23.00	PRODUCTIO N	Cartesta con monta estat mast quantum Si
12:00AM	MESAVERDE/		9,257.0	9,258.0	4.00	0.360 EXP/	3.375	90.00		23.00	PRODUCTIO N	
12:00AM	MESAVERDE/		9,303.0	9,305.0	3.00	0.360 EXP/	3.375	120.00	the other transfer than control announcement and temperature in processing and an activities of the control and the control an	23.00	PRODUCTIO N	
12:00AM	MESAVERDE/		9,336.0	9,338.0	3.00	0.360 EXP/	3.375	120.00	FERTY 1 TO Other person proportion received a seek received and a second of a second of the second o	23.00	PRODUCTIO N	
12:00AM	MESAVERDE/		9,430.0	9,431.0	4.00	0.360 EXP/	3.375	90.00	en Brette efficie substanti use i protessigni alle ulabore ligita i sulliva sa anni alle si	23.00	PRODUCTIO N	· magaint arannamagnasis (
12:00AM	MESAVERDE/		9,595.0	9,596.0	4.00	0.360 EXP/	3.375	90.00	etti on illette tittegateitettiinin Soviet illineside vade vade kalendaris ja vate	23.00	PRODUCTIO N	
12:00AM	MESAVERDE/	The state of the s	9,638.0	9,640.0	3.00	0.360 EXP/	3.375	120.00	The control of the best of the decrease of the control of the cont		PRODUCTIO N	S Security and a second section of the second section
12:00AM	MESAVERDE/		9,671.0	9,673.0	3.00	0.360 EXP/	3.375	120.00		The same transfer and the same of the same of	PRODUCTIO N	
12:00AM	MESAVERDE/	Barrier Charles Control of Assert Control of	9,748.0	9,750.0	4.00	0.360 EXP/	3.375	90.00	Michael Committee (In terrority) - Agreement committee (In the Agreement Committee (In		PRODUCTIO N	

3 Plots

3.1 Wellbore Schematic



				0				REGION ary Report
Well: NBU 921-	35C4C	S [YELLOW	<u> </u>	Spud C	onductor	: 4/8/201	1	Spud Date: 4/15/2011
Project: UTAH-	UINTA	H	<u> </u>	Site: NB	U 921-3	5F2 PAE)	Rig Name No: GWS 1/1
Event: COMPL	ETION			Start Da	te: 7/22/	2011		End Date: 8/2/2011
Active Datum: F	RKB@	5,119.00ft (a	bove Mean	Sea	UWI: S	E/NW/0/	9/S/21/	E/35/0/0/26/PM/N/1686/W/0/1699/0/0
Date	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (ft)
7/22/2011	7:00	- 7:15	0.25	COMP	48		Р	HSM, PRESSURE TESTING
	7:15	- 15:00	7.75	СОМР	47	В	Р	MIRU B&C TESTERS, P/T CSG & FRAC VALVES TO 1000# W/ 6# LOSS IN 15 MIN. BUMP PRESSURE UP TO 3500# W/ 43# LOSS IN 15 MIN. BUMP PRESSURE UP TO 7000# W/ 112# LOSS IN 30 MIN, BUMP BACK UP TO 7000# W/ 105# LOSS IN 30 MIN. [GOOD TEST]
								MIRU CASED HOLE SOLUTIONS 1ST SHOOT MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE, AS PERSAY IN DESIGN. SWIFN.
7/25/2011	7:00	- 7:45	0.75	COMP	48		Р	HSM, PREFRAC DESIGN. PRESSURE TEST POPOFFS
	7:45	- 7:45	0.00	COMP	36	E	P	FRAC STG #1] WHP=1,845#, BRK DN PERFS=3,143#, @=4.3 BPM, INJ RT=50.4, INJ PSI=5,714#, ISIP=2,511#, FG=.70, PUMP'D 2078 BBLS SLK WTR W/ 30,712# 30/50 MESH TOTAL PROP PUMP'D, ISIP=3,033#, FG=.75, AR=50.4, AP=5,402#, MR=50.9, MP=6,340#, NPI=522#, 22/24 92% CALC PERFS OPEN. X OVER TO WIRE LINE
								PERF STG #2] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=9,461', PERF LOWER MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW
								FRAC STG #2] WHP=1,654#, BRK DN PERFS=3,912#, @=4.9 BPM, INJ RT=42.3, INJ PSI=5,850#, ISIP=2,751#, FG=.73, PUMP'D 902 BBLS SLK WTR W/ 20,029# 30/50 MESH TOTAL PROP PUMP'D, ISIP=3,244#, FG=.79, AR=48.3, AP=6,159#, MR=50.7, MP=6,497#, NPI=493#, 17/24 71% CALC PERFS OPEN. X OVER TO WIRE LINE
								PERF STG #3] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=9,196', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW
								FRAC STG #3] WHP=2,131#, BRK DN PERFS=3,984#, @=4.9 BPM, INJ RT=48.8, INJ PSI=5,711#, ISIP=2,935#, FG=.76, PUMP'D 829 BBLS SLK WTR W/15,284 # 30/50 MESH TOTAL PROP PUMP'D, ISIP=2,993#, FG=.77, AR=50.5, AP=5,677#, MR=50.8, MP=5,935#, NPI=58#, 24/24 100% CALC PERFS OPEN. X OVER TO WIRE LINE
							_	PERF STG #4] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,850', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW. SWINES A WIRELING
7/26/2011	6:45	- 7:00	0.25	COMP	48		Р	HSM, HIGH PRESSURE & WIRELINE

US ROCKIES REGION Operation Summary Report Spud Conductor: 4/8/2011 Well: NBU 921-35C4CS [YELLOW] Spud Date: 4/15/2011 Project: UTAH-UINTAH Site: NBU 921-35F2 PAD Rig Name No: GWS 1/1 **Event: COMPLETION** Start Date: 7/22/2011 End Date: 8/2/2011 Active Datum: RKB @5,119.00ft (above Mean Sea UWI: SE/NW/0/9/S/21/E/35/0/0/26/PM/N/1686/W/0/1699/0/0 Level) Date Time Duration Phase Sub P/U MD From Operation Start-End (hr) Code (ft) 7:00 - 7:00 0.00 COMP 36 Ε P FRAC STG #4] WHP=1,642#, BRK DN PERFS=3,153#, @=4.7 BPM, INJ RT=50.7, INJ PSI=4,693#, ISIP=2,250#, FG=.70, PUMP'D 801 BBLS SLK WTR W/ 14,686# 30/50 MESH TOTAL PROP PUMP'D, ISIP=2,692#, FG=.75, AR=50.6, AP=4,872#, MR=52, MP=5,458#, NPI=442#, 24/24 100% CALC PERFS OPEN. X OVER TO WIRE PERF STG #5] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,582', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW FRAC STG #5] WHP=1,483#, BRK DN PERFS=2,566#, @=4.5 BPM, INJ RT=50.5, INJ PSI=5.034#, ISIP=1.924#, FG=.67, PUMP'D 1.046 BBLS SLK WTR W/ 21,091# 30/50 MESH TOTAL PROP PUMP'D, ISIP=2,692#, FG=.75, AR=50.6, AP=4,622#, MR=51, MP=5,137#, NPI=627#, 21/24 89% CALC PERFS OPEN, X OVER TO WIRE LINE PERF STG #6] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,260', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO **FRAC CREW** FRAC STG #6] WHP=1,665#, BRK DN

9/2/2011

7/27/2011

9:03:33AM

7:00 - 7:15

0.25

COMP

48

P

PERFS=2,402#, @=4.9 BPM, INJ RT=50.7, INJ PSI=4,351#, ISIP=1,844#, FG=.67, PUMP'D 1,201 BBLS SLK WTR W/ 24,834# 30/50 MESH TOTAL PROP PUMP'D, ISIP=2,375#, FG=.73, AR=50.9, AP=4,223#, MR=51.1, MP=4,709#, NPI=531# 24/24 100% CALC PERFS OPEN. X OVER TO WIRE

PERF STG #7] P/U RIH W/ HALIBURTON 8K CBP &

MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW, [MISSFIRE TOP GUN DID NOT SHOOT POOH FIX PROBLEM RUN BACK IN

PERF GUN, SET CBP @=7,892', PERF

LINE

HOLE.] SWIFN.

HSM, FRACING

			C			新心态	REGION n <mark>ary Report</mark>	
Well: NBU 921	1-35C4CS [YELLOV	<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	Spud C	onductor	: 4/8/201	<u> </u>	Spud Date: 4/1	l 5/2011
Project: UTAH		<u>- a </u>		BU 921-3			- F	Rig Name No: GWS 1/1
Event: COMPL			Start Da	ate: 7/22/	2011			End Date: 8/2/2011
Active Datum:	RKB @5,119.00ft (a	above Mean				/9/S/21/	E/35/0/0/26/PM/N	/1686/W/0/1699/0/0
Level) Date	Time	Duration	Phase	Code	Sub	P/U	MD From	Operation
8/1/2011	Start-End 7:15 - 7:15 7:00 - 7:15 7:15 - 17:00	0.25 9.75	COMP	36 48 31	E I	PPP	(ft)	FRAC STG #7] WHP=981#, BRK DN PERFS=2,887#, @=4.6 BPM, INJ RT=50.1, INJ PSI=5,727#, ISIP=2,102#, FG=.71, PUMP'D 1,363 BBLS SLK WTR W/ 28,224# 30/50 MESH TOTAL PROP PUMP'D, ISIP=2,601#, FG=.77, AR=50.3, AP=5,492#, MR=50.6, MP=5,893#, NPI=499#, 18/24 75% CALC PERFS OPEN. X OVER TO WIRE LINE PERF STG #8] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7,676', PERF MESAVERDE / WASATCH USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW FRAC STG #8] WHP=1,802#, BRK DN PERFS=2,792#, @=4 BPM, INJ RT=45.6, INJ PSI=5,500#, ISIP=2,057#, FG=.72, PUMP'D 644 BBLS SLK WTR W/ 17,119# 30/50 MESH TOTAL PROP PUMP'D, ISIP=2,593#, FG=.78, AR=48.3, AP=5,492#, MR=50.2, MP=6,238#, NPI=536#, 16/24 68%7,436 CALC PERFS OPEN. P/U RIH W/ HALIBURTON 8K CBP, SET FOR TOP KILL @=7,436' 8,864 TOTAL BBLS PUMP'D 171,979# TOTAL SAND PUMP'D 781 GALS SCALE INHIB 153 GALS BIO HSM, SLIPS, TRIPS & FALLS, PU TBG MIRU, SPOT EQUIP, ND WH, NU BOP, RU FLOOR & TBG EQUIP, SPOT TBG TRAILER, PU 3 7/8" BIT, POBS, XN SN & 2 3/8" TBG TO 7,420', RU POWER SWIVEL, FILL TBG BREAK CIRC, PRESS TEST BOP TO 3,000 PSI FOR 15 MIN, LOST 0 PSI, START DRLG PLUGS, SURFACE CSG VALVE OPEN & LOCKED. C/O 30' SAND, TAG 1ST PLUG @ 7,450' DRL PLUG IN 9 MIN. 600 PSI INCREASE RIH, CSG PRESS 50 PSI. C/O 70' SAND, TAG 3RD PLUG @ 7,680' DRL PLUG IN 8 MIN. 300 PSI INCREASE RIH, CSG PRESS 75 PSI. C/O 70' SAND, TAG 3RD PLUG @ 7,680' DRL PLUG IN 8 MIN. 350 PSI INCREASE RIH, CSG PRESS 75 PSI. C/O 70' SAND, TAG 3RD PLUG @ 7,892' DRL PLUG IN 10 MIN. 350 PSI INCREASE RIH, CSG PRESS 75 PSI. C/O 70' SAND, TAG 3RD PLUG @ 7,892' DRL PLUG IN 10 MIN. 350 PSI INCREASE RIH, CSG PRESS 75 PSI. C/O 70' SAND, TAG 3RD PLUG @ 7,892' DRL PLUG IN 10 MIN. 350 PSI INCREASE RIH, CSG PRESS 75 PSI. C/O 70' SAND, TAG 3RD PLUG @ 7,892' DRL PLUG IN 10 MIN. 350 PSI INCREASE RIH, CSG PRESS 75 PSI.
8/2/2011	7:00 - 7:15	0.25	СОМР	48		Р		CALLED CDC TALKED TO SONNY FOR TURN ON TOMORROW. HSM, SLIPS, TRIPS & FALLS, PICKING POWER SWIVEL UP & DOWN.

9/2/2011 9:03:33AM

3

Well: NBU 921-35C4CS [YELLOW]	Spud C	onductor: 4/8/201	Spud Date: 4/15/2011					
Project: UTAH-UINTAH	Site: NE	BU 921-35F2 PAD	Rig Name No: GWS 1/1					
Event: COMPLETION	Start Da	nte: 7/22/2011	End Date: 8/2/2011					
Active Datum: RKB @5,119.00ft (about Level)	ve Mean Sea	ea UWI: SE/NW/0/9/S/21/E/35/0/0/26/PM/N/1686/W/0/1699/0/0						
and the service of th	uration Phase (hr)	Code Sub Code	U MD From Operation (ft)					
7:15 - 17:00	9.75 COMP	44 C	SICP 1,400 PSI, OPEN WELL HAD LITTLE PUFF OF GAS THEN MOSTLY STRAIGHT WATER, D/O REMAINING PLUGS, SURFACE CSG VALVE OPEN & LOCKED.					
			C/O 35' SAND, TAG 4TH PLUG @ 8,266' DRL PLUG IN 8 MIN. 500 PSI INCREASE RIH, CSG PRESS 250 PSI.					
			C/O 30' SAND, TAG 5TH PLUG @ 8,582' DRL PLUG IN 11 MIN. 300 PSI INCREASE RIH, CSG PRESS 450 PSI.					
			C/O 45' SAND, TAG 6TH PLUG @ 8,856' DRL PLUG IN 10 MIN. 400 PSI INCREASE RIH, CSG PRESS 450 PSI.					
			C/O 30' SAND, TAG 7TH PLUG @ 9,196' DRL PLUG IN 9 MIN. 500 PSI INCREASE RIH, CSG PRESS 500 PSI.					
			C/O 30' SAND, TAG 8TH PLUG @ 9,461' DRL PLUG IN 12 MIN. 500 PSI INCREASE RIH, CSG PRESS 500 PSI.					
			PBTD @ 9,832', BTM PERF @ 9,750', RIH TAG @ 9,775', P/U POWER SWIVEL, C/O FROM 9,775' TO 9,832 PBTD, 82' PAST BTM PERF W/ 310 JTS 2 3/8" L-80 TBG, LD 20 JTS, PU & STRIP IN TBG HANGER & LAND TBG W/ 290 JTS 2 3/8" L-80, EOT 9,198.21'.					
			RD POWER SWIVEL, FLOOR & TBG EQUIP, ND BOPS, NU WH, DROP BALL TO SHEAR OFF BIT W. 3,000 PSI, LET BIT FALL FOR 20 MIN.					
			TURN OVER TO FLOW BACK CREW, RD & MOVE TO NEXT WELL ON PAD.					
			KB= 14' 4 1/16" WEATHERFORD HANGER= .83' TBG DELIVERED 315 JTS 290 JTS 2 3/8" L-80 = 9,181.18' USED 290 JTS POBS= 2.20' RETURNED 25 JTS EOT @ 9,198.21'					
			TWTR= 9,005 BBLS TWR= 2,000 BBLS TWLTR= 7,005 BBLS CALLED CDC TALKED TO SONNY					
14:00 - 14:00	0.00 PROD	50	WELL TURNED TO SALES @ 1400 HR ON 8/2/11 - 1225 MCFD, 1920 BWPD, CP 2700#, FTP 2300#, CK 20/64"					
8/3/2011 7:00 -		33 A	7 AM FLBK REPORT: CP 3550#, TP 2600#, 20/64" CK, 0 BWPH, HVY SAND, - GAS TTL BBLS RECOVERED: 2630 BBLS LEFT TO RECOVER: 6375					
8/4/2011 7:00 -		33 A	7 AM FLBK REPORT: CP 3300#, TP 2250#, 20/64" CK, 42 BWPH, MED SAND, - GAS TTL BBLS RECOVERED: 3713					

9/2/2011 9:03:33AM

US ROCKIES REGION Operation Summary Report Spud Date: 4/15/2011 Spud Conductor: 4/8/2011 Well: NBU 921-35C4CS [YELLOW] Site: NBU 921-35F2 PAD Rig Name No: GWS 1/1 Project: UTAH-UINTAH Start Date: 7/22/2011 End Date: 8/2/2011 **Event: COMPLETION** Active Datum: RKB @5,119.00ft (above Mean Sea UWI: SE/NW/0/9/S/21/E/35/0/0/26/PM/N/1686/W/0/1699/0/0 Level) Sub P/U MD From Operation Time Duration Phase Code Date Start-End (hr) Code (ft) 7:00 -7 AM FLBK REPORT: CP 3050#, TP 2050#, 20/64" 8/5/2011 33 CK, 35 BWPH, MED SAND, - GAS TTL BBLS RECOVERED: 4632 BBLS LEFT TO RECOVER: 4373 7:00 -7 AM FLBK REPORT: CP 2800#, TP 1900#, 20/64" 33 Α 8/6/2011 CK, 28 BWPH, TRACE SAND, - GAS

TTL BBLS RECOVERED: 5364 BBLS LEFT TO RECOVER: 3641

9/2/2011 9:03:33AM

5



Site: NBU 921-35F2 Pad

Well: NBU 921-35C4CS

Wellbore: OH Design: OH

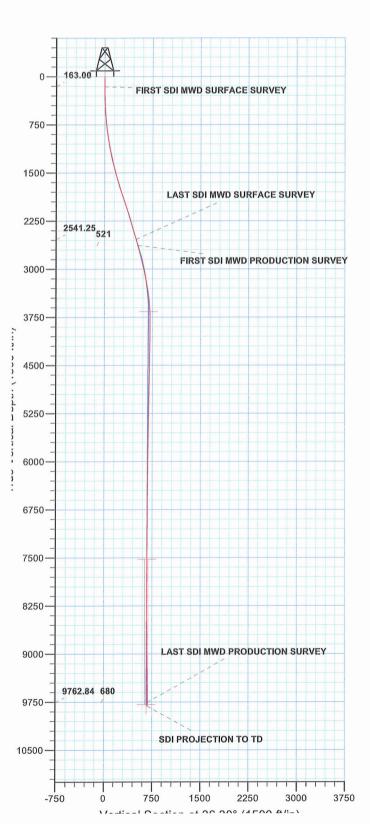


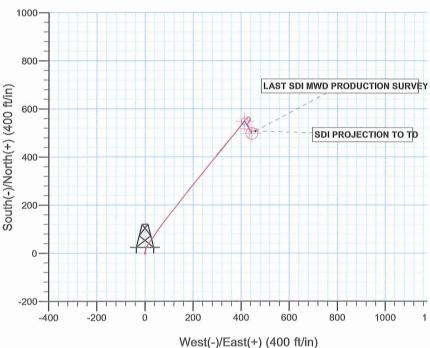
WELL DETAILS: NBU 921-35C4CS GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139) Northing 14527724.03 Easting 2054497.65 Latittude 39° 59' 42.655 N Longitude 109° 31' 17.688 W



Azimuths to True North Magnetic North: 11.11°

> Magnetic Field Strength: 52341.7snT Dip Angle: 65.86° Date: 04/05/2011 Model: IGRF2010





PROJECT DETAILS: Uintah County, UT UTM12

Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 - Western US
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SEC 35 T9S R21E

System Datum:Mean Sea Level

Design: OH (NBU 921-35C4CS/OH)

Created By: RobertScott Date: 15:28, June 10 2011



Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12 NBU 921-35F2 Pad NBU 921-35C4CS

OH

Design: OH

Survey Report - Geographic

10 June, 2011





SDI Survey Report - Geographic



39° 59' 42.655 N

5,105,00 ft

109° 31' 17.688 W

52.342

0.00

Kerr McGee Oil and Gas Onshore LP Company:

Project: Uintah County, UT UTM12 Site NBU 921-35F2 Pad NBU 921-35C4CS Wall.

Wellbore: OH Design:

Geo Datum:

Map Zone:

Local Co-ordinate Reference:

GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139) TVD Reference:

GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139) MD Reference:

Well NBU 921-35C4CS

65 86

North Reference:

Minimum Curvature **Survey Calculation Method:** EDM5000-RobertS-Local Database:

Uintah County, UT UTM12 **Project**

Universal Transverse Mercator (US Survey Feet) Map System:

NAD 1927 - Western US

Zone 12N (114 W to 108 W)

Mean Sea Level System Datum:

NBU 921-35F2 Pad, SEC 35 T9S R21E Site

14,527,718.98 usft 39° 59' 42.608 N Northina: Latitude: Site Position: 109° 31' 17.940 W 2,054,478.12 usft Longitude: Lat/Long From: Easting:

0.95 ° 13.200 in **Grid Convergence:** 0.00 ft Slot Radius: **Position Uncertainty:**

Well NBU 921-35C4CS, 1686' FNL 1699' FWL

IGRF2010

14,527,724.04 usft Latitude: Well Position +N/₋S 0.00 ft Northing:

04/05/2011

2,054,497.65 usft Longitude: +E/-W 0.00 ft Easting:

Ground Level: Position Uncertainty 0.00 ft Wellhead Elevation:

Wellbore OH **Model Name** Sample Date Declination Dip Angle Field Strength Magnetics (nT) (°)

11.11

Tie On Depth:

Design OH

Audit Notes:

2,703.00

1.0

Version:

Direction +N/-S +E/-W Vertical Section: Depth From (TVD)

(ft) (ft) (°) (ft)

36.30 0.00 0.00 0.00

ACTUAL

06/10/2011 Date Survey Program From To Description (ft) (ft) Survey (Wellbore) **Tool Name** MWD SDI MWD - Standard ver 1.0.1 2,605.00 Survey #1 SDI MWD SURFACE (OH) 10.00 MWD SDI MWD - Standard ver 1.0.1 9,905.00 Survey #2 SDI MWD PRODUCTION (OH)

Survey Measured Vertical Map Map Depth Northing Easting Depth Inclination Azimuth +N/-S +E/-W (uaft) (usft) (ft) (ft) (ft) (ft) Latitude Longitude (°) (°) 39° 59' 42.655 N 109° 31' 17.688 W 0.00 0.00 0.00 0.00 14,527,724.04 2,054,497.65 0.00 0.00 10.00 0.00 0.00 14,527,724.04 2,054,497.65 39° 59' 42.655 N 109° 31' 17.688 W 10.00 0.00 0.00 39° 59' 42.666 N 109° 31' 17.687 W 2,054,497.69 163.00 0.79 3.38 163.00 1.05 0.06 14,527,725.09 FIRST SDI MWD SURFACE SURVEY 249.99 2,054,497.87 39° 59' 42,676 N 109° 31' 17.685 W 0.25 14,527,726.14 250.00 0.62 19.20 2.10 357.14 333.97 3.68 0.34 14.527,727.72 2,054,497.93 39° 59' 42.692 N 109° 31' 17.684 W 1.58 334.00 423.90 7.32 0.57 14,527,731.37 2,054,498.09 39° 59' 42.728 N 109° 31' 17.681 W 424.00 3.08 6.72 4.40 19.20 513.70 12.98 1.98 14,527,737.05 2,054,499.42 39° 59' 42.784 N 109° 31' 17.663 W 514.00 2.054.502.13 39° 59' 42.852 N 109° 31' 17.626 W 24.56 19.95 4 81 14,527,744.06 604.00 5.19 603.39 39° 59' 42.927 N 109° 31' 17.584 W 22.36 693.01 27.48 8.08 14,527,751.65 2,054,505.27 694 00 5 28 784.00 5.89 30.45 782.59 35.29 11.99 14,527,759.52 2,054,509.05 39° 59' 43.004 N 109° 31' 17.534 W



SDI

Survey Report - Geographic



Company:

Kerr McGee Oil and Gas Onshore LP

Project: Site: Well: Uintah County, UT UTM12 NBU 921-35F2 Pad

NBU 921-35F2 Pag NBU 921-35C4CS

Wellbore: Design: он он Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Database:

Well NBU 921-35C4CS

GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139)

GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139)

True

Minimum Curvature EDM5000-RobertS-Local

Survey		er amerikansk statik Statisk statisk	anda anda anda anda Sansanga anga anga		(2/42/5), 24,7/5(3				
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Map Northing	Map Easting		
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)	Latitude	Longitude
874.00	6.95	35.72	872.02	43.69	17.51	14,527,768.01	2,054,514.43	39° 59' 43.087 N	109° 31' 17.463 W
964.00	8.79	36.86	961.17	53.62	24.82	14,527,778.06	2,054,521.57	39° 59' 43.185 N	109° 31' 17.369 W
1,054.00	9.94	34.84	1,049.97	65.49	33.38	14,527,790.08	2,054,529.94	39° 59′ 43.303 N	109° 31' 17.259 W
1,144.00	11.17	34.40	1,138.45	79.06	42.74	14,527,803.80	2,054,539.07	39° 59′ 43.437 N	109° 31' 17.139 W
1,234.00	12.57	32.73	1,226.52	94.49	52.96	14,527,819.40	2,054,549.04	39° 59' 43.589 N	109° 31' 17.007 W
1,324.00	13.28	37.21	1,314.24	110.97	64.51	14,527,836.06	2,054,560.31	39° 59′ 43.752 N	109° 31' 16.859 W
1,414.00	13.63	36.33	1,401.77	127.74	77.04	14,527,853.04	2,054,572.56	39° 59' 43.918 N	109° 31' 16.698 W
1,504.00	14.68	38.53	1,489.04	145.21	90.43	14,527,870.72	2,054,585.66	39° 59' 44.090 N	109° 31' 16.526 W
1,594.00	15.65	38.97	1,575.90	163.57	105.17	14,527,889.33	2,054,600.09	39° 59' 44.272 N	109° 31' 16.336 W
1,684.00	16.97	37.65	1,662.28	183.40	120.83	14,527,909.42	2,054,615.42	39° 59' 44.468 N	109° 31' 16.135 W
1,774.00	17.76	37.65	1,748.18	204.67	137.24	14,527,930.96	2,054,631.47	39° 59' 44.678 N	109° 31' 15.924 W
1,864.00	17.85	38.44	1,833.86	226.34	154.20	14,527,952.91	2,054,648.07	39° 59' 44.892 N	109° 31' 15.706 W
1,954.00	18.29	37.57	1,919.43	248.34	171.38	14,527,975.19	2,054,664.89	39° 59' 45.110 N	109° 31' 15.486 W
2,044.00	18.64	39.67	2,004.79	270.61	189.17	14,527,997.74	2,054,682.31	39° 59' 45.330 N	109° 31' 15.257 W
2,134.00	18.99	40.20	2,089.98	292.86	207.81	14,528,020.30	2,054,700.57	39° 59' 45.550 N	109° 31' 15.017 W
2,224.00	17.15	38.62	2,175.54	314.42	225.54	14,528,042.15	2,054,717.94	39° 59' 45.763 N	109° 31' 14.790 W
2,314.00	16.18	38.44	2,261.76	334.60	241.62	14,528,062.60	2,054,733.69	39° 59' 45.963 N	109° 31' 14.583 W
2,404.00	15.83	38.18	2,348.27	354.08	257.01	14,528,082.33	2,054,748.74	39° 59' 46.155 N	109° 31' 14.385 W
2,494.00	15.92	39.23	2,434.84	373.29	272.40	14,528,101.79	2,054,763.82	39° 59' 46.345 N	109° 31' 14.187 W
2,605.00	17.15	38.80	2,541.25	397.83	292.28	14,528,126.66	2,054,783.29	39° 59' 46.588 N	109° 31' 13.932 W
	NWD SURF								
2,703.00	15.28	36.78	2,635.35	419.44	309.07	14,528,148.54	2,054,799.72	39° 59' 46.801 N	109° 31' 13.716 W
FIRST SI	DI MWD PROD	DUCTION SUI	RVEY						•
2,793.00	15.34	41.16	2,722.15	437.90	324.01	14,528,167.25	2,054,814.34	39° 59' 46.984 N	109° 31' 13.524 W
2,884.00	14.17	40.59	2,810.15	455.42	339.18	14,528,185.02	2,054,829.22	39° 59' 47.157 N	109° 31' 13.329 W
2,974.00	13.95	39.90	2,897.46	472.11	353.30	14,528,201.94	2,054,843.07	39° 59′ 47.322 N	109° 31' 13.148 W
3,065.00	12.55	38.32	2,986.03	488.28	366.47	14,528,218.33	2,054,855.97	39° 59' 47.482 N	109° 31' 12.978 W
3,155.00	11.46	38.25	3,074.06	502.98	378.07	14,528,233.21	2,054,867.32	39° 59' 47.627 N	109° 31' 12.829 W
3,246.00	11.11	36.87	3,163.30	517.09	388.92	14,528,247.51	2,054,877.94	39° 59′ 47.766 N	109° 31' 12.690 W
3,336.00	10.28	39.22	3,251.74	530.25	399.21	14,528,260.83	2,054,888.00	39° 59′ 47.896 N	109° 31' 12.558 W
3,427.00	9.68	38.03	3,341.36	542.57	409.05	14,528,273.31	2,054,897.64	39° 59' 48.018 N	109° 31' 12.431 W
3,517.00	7.25	38.95	3,430.37	552.94	417.29	14,528,283.83	2,054,905.70	39° 59' 48.121 N	109° 31' 12.325 W
3,608.00	5.13	49.13	3,520.84	560.07	423.97	14,528,291.06	2,054,912.27	39° 59' 48.191 N	109° 31' 12.239 W
3,699.00	2.77	47.91	3,611.62	564.21	428.68	14,528,295.28	2,054,916.91	39° 59' 48.232 N	109° 31' 12.179 W
3,789.00	1.41	74.35	3,701.56	565.97	431.36	14,528,297.08	2,054,919.56	39° 59' 48.249 N	109° 31' 12.144 W
3,880.00	0.95	125.23	3,792.54	565.83	433.06	14,528,296.97	2,054,921.26	39° 59′ 48.248 N	109° 31' 12.123 W
3,970.00	0.90	127.87	3,882.53	564.97	434.22	14,528,296.13	2,054,922.44	39° 59' 48.240 N	109° 31' 12.108 W
4,061.00	1.15	142.52	3,973.52	563.80	435.34	14,528,294.98	2,054,923.58	39° 59′ 48.228 N	109° 31' 12.093 W
4,151.00	1.31	147.73	4,063.49	562.22	436.44	14,528,293.42	2,054,924.70	39° 59′ 48.212 N	109° 31' 12.079 W
4,242.00	1.31	150.14	4,154.47	560.44	437.52	14,528,291.65	2,054,925.81	39° 59' 48.195 N	109° 31' 12.065 W
4,332.00	0.96	160.93	4,244.45	558.83	438.27	14,528,290.06	2,054,926.59	39° 59′ 48.179 N	109° 31' 12.056 W
4,423.00	1.10	164.88	4,335.44	557.27	438.75	14,528,288.50	2,054,927.09	39° 59' 48.163 N	109° 31' 12.049 W
4,513.00	0.67	218.21	4,425.43	556.02	438.65	14,528,287.26	2,054,927.02	39° 59′ 48.151 N	109° 31' 12.051 W
4,604.00	0.90	215.10	4,516.42	555.02	437.91	14,528,286.24	2,054,926.29	39° 59' 48.141 N	109° 31' 12.060 W
4,694.00	0.78	199.74	4,606.41	553.86	437.30	14,528,285.08	2,054,925.70	39° 59' 48.130 N	109° 31' 12.068 W
4,785.00	0.93	178.43	4,697.40	552.54	437.11	14,528,283.75	2,054,925.53	39° 59' 48.117 N	109° 31' 12.071 W
4,875.00	1.14	174.83	4,787.39	550.92	437.21	14,528,282.13	2,054,925.66	39° 59' 48.101 N	109° 31' 12.069 W
4,966.00	1.32	225.99	4,878.37	549.29	436.54	14,528,280.49	2,054,925.01	39° 59′ 48.085 N	109° 31' 12.078 W
5,056.00	1.37	225.71	4,968.34	547.82	435.02	14,528,278.99	2,054,923.52	39° 59′ 48.070 N	109° 31' 12.097 W
5,147.00	1.20	225.60	5,059.32	546.39	433.56	14,528,277.54	2,054,922.09	39° 59' 48.056 N	109° 31' 12.116 W
5,237.00	1.18	222.60	5,149.30	545.05	432.26	14,528,276.18	2,054,920.81	39° 59' 48.043 N	109° 31' 12.133 W
5,328.00	1.12	224.79	5,240.28	543.73	431.00	14,528,274.84	2,054,919.57	39° 59' 48.030 N	109° 31' 12.149 W
5,418.00	0.93	208.74	5,330.27	542.46	430.03	14,528,273.56	2,054,918.62	39° 59' 48.017 N	109° 31' 12.162 W
5,509.00	0.88	201.24	5,421.26	541.17	429.42	14,528,272.25	2,054,918.03	39° 59' 48.004 N	109° 31' 12.169 W
5,600.00	0.81	193.76	5,512.25	539.89	429.02	14,528,270.97	2,054,917.65	39° 59' 47.992 N	109° 31' 12.175 W



SDISurvey Report - Geographic



Company: Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12
Site: NBU 921-35F2 Pad

Well: NBU 921-35C4CS

Wellbore: OH
Design: OH

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Database:

Well NBU 921-35C4CS

GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139) GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139)

True

Minimum Curvature
EDM5000-RobertS-Local

Depth (ff) Inclination (%) Azimuth (%) Depth (ff) +N/-S (ff) +E/-W (ff) Northing (usff) Easting (usff) Latitude Longitude 5,690.00 0.66 219.78 5,692.24 538.87 428.53 14,528,269.94 2,054,917.18 39° 59' 47.982 N 109° 31' 12. 5,781.00 0.91 206.81 5,693.23 537.83 427.87 14,528,268.89 2,054,916.54 39° 59' 47.971 N 109° 31' 12. 5,871.00 0.79 190.60 5,783.22 536.58 427.43 14,528,266.44 2,054,916.02 39° 59' 47.959 N 109° 31' 12. 5,962.00 0.72 180.62 5,874.21 535.39 427.31 14,528,266.44 2,054,916.02 39° 59' 47.937 N 109° 31' 12. 6,052.00 0.59 173.80 5,964.21 534.36 427.36 14,528,266.44 2,054,916.08 39° 59' 47.937 N 109° 31' 12. 6,143.00 0.59 149.89 6,055.20 533.49 427.64 14,528,265.41 2,054,916.08 39° 59' 47.937 N 109° 31' 12.	leasured			Vertical			Map	Map		
5,690.00 0.66 219.78 5,602.24 538.67 428.53 14,528,269.94 2,054,917.18 39°59 47,982 N 109°31°12. 5,781.00 0.91 100.00 5,783.22 538.58 427.87 14,528,269.94 2,054,916.12 39°59 47,7959 N 109°31°12. 5,982.00 0.72 180.62 5,784.21 535.39 427.31 14,528,269.64 2,054,916.12 39°59 47,9791 N 109°31°12. 5,982.00 0.72 180.62 5,784.21 535.39 427.31 14,528,269.64 2,054,916.02 39°59 47,9799 N 109°31°12. 6,143.00 0.59 173.80 5,596.42 1 534.36 427.38 14,528,269.61 2,054,916.02 39°59 47,9791 N 109°31°12. 6,143.00 0.59 173.80 5,596.42 1 534.36 427.38 14,528,269.61 2,054,916.03 39°59 47,987 N 109°31°12. 6,143.00 0.59 174.01 100°13 11°2. 6,232.00 0.86 1619.7 6,145.50 532.45 428.08 145,282,265.61 2,054,916.38 39°59 47,987 N 109°31°12. 6,232.00 0.87 156.62 6,236.18 631.17 428.67 14,528,269.65 2,054,916.38 39°59 47,987 N 109°31°12. 6,232.00 0.87 156.62 6,236.18 631.17 428.67 14,528,269.65 2,054,916.38 39°59 47,987 N 109°31°12. 6,232.00 0.87 156.62 6,236.18 631.17 428.67 14,528,269.61 2,054,916.38 39°59 47,987 N 109°31°12. 6,255.00 1.16 161.14 6,326.17 529.68 429.14 14,528,269.07 2,054,916.38 39°59 47,987 N 109°31°12. 6,555.00 1.17 161.6 4 6,326.17 522.68 429.14 14,528,269.07 2,054,916.38 39°59 47,987 N 109°31°12. 6,565.00 0.47 196.41 6,536.15 524.97 430.50 14,528,269.07 2,054,918.33 39°59 47,887 N 109°31°12. 6,686.00 0.47 196.41 6,598.12 524.97 430.50 14,528,259.07 2,054,919.33 39°59 47,887 N 109°31°12. 6,687.00 0.42 168.84 6,680.11 521.70 430.60 14,528,258.07 2,054,919.33 39°59 47,887 N 109°31°12. 6,687.00 0.69 156.46 6,689.11 521.70 430.60 14,528,258.07 2,054,919.33 39°59 47,887 N 109°31°12. 6,687.00 0.69 156.46 6,689.11 521.70 430.60 14,528,258.07 2,054,919.33 39°59 47,887 N 109°31°12. 6,697.00 0.69 156.46 6,689.11 521.70 430.60 14,528,258.07 2,054,919.33 39°59 47,887 N 109°31°12. 6,697.00 0.69 156.46 6,689.11 521.70 430.60 14,528,258.07 2,054,919.33 39°59 47,887 N 109°31°12. 7,139.00 0.74 157.85 7,051.10 520.73 343.11 4,528,258.58 2,054,919.10 39°59 47,880 N 109°31°12. 7,229.00 0.69 156.46 6,689.11 521.70 430.60 14,528,258.25 2,054		Inclination	Azimuth		+N/-S					
5.781.00	(ft)	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)	Latitude	Longitude
5,871.00 0,79 190.60 6,783.22 586.89 427.43 14.528,267.63 2,054.916.12 39.59.47.959 N 109°31'12. 6,052.00 0,59 173.80 5,964.21 535.39 427.31 14.528,266.41 2,054.916.08 39.59.47.957 N 109°31'12. 6,052.00 0,59 173.80 5,964.21 534.38 427.38 14.528,266.41 2,054.916.08 39.59.47.957 N 109°31'12. 6,052.00 0,68 161.97 6,145.20 532.45 428.08 14,528,263.65 2,054.916.38 39.59.47.957 N 109°31'12. 6,323.00 0,86 161.97 6,145.20 532.45 428.08 14,528,263.65 2,054.916.38 39.59.47.957 N 109°31'12. 6,324.00 0,87 156.62 6,236.18 531.17 428.57 14,528,263.24 2,054.917.35 39.59.47.951 N 109°31'12. 6,505.00 1,16 161.46 6,326.17 529.88 429.14 14,528,263.61 2,054.917.35 39.59.47.951 N 109°31'12. 6,505.00 1,11 161.84 6,441.00 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40 14.40	5,690.00	0.66	219.78	5,602.24	538.87	428.53	14,528,269.94	2,054,917.18	39° 59' 47.982 N	109° 31' 12.1
6,982,00 0,72 180,62 6,874,21 534,38 427,38 1,4528,2664 4 2,054,916,02 39° 59′ 47,947 N 109° 31′ 12. 6,143,00 0,59 173,80 5,984,21 534,38 427,38 1,4528,2654,55 2,054,916,02 39° 59′ 47,947 N 109° 31′ 12. 6,233,00 0,86 161,97 6,145,20 532,45 428,08 14,528,2654,55 2,054,916,38 39° 59′ 47,926 N 109° 31′ 12. 6,234,00 0,87 165,62 6,236,18 531,17 428,57 14,528,262,31 2,064,917,36 39′ 59′ 47,937 N 109° 31′ 12. 6,414,00 1,16 161,14 6,471,75 527,97 428,71 14,528,262,24 2,064,917,36 39′ 59′ 47,891 N 109° 31′ 12. 6,595,00 1,11 161,36 6,471,75 527,97 429,71 14,528,262,32 2,064,917,36 39′ 59′ 47,891 N 109° 31′ 12. 6,596,00 1,21 161,13 6,508,13 526,22 430,29 14,528,263,53 2,064,918,15 39′ 59′ 47,891 N 109° 31′ 12. 6,596,00 1,21 161,13 6,508,13 526,22 430,29 14,528,257,32 2,064,918,15 39′ 59′ 47,891 N 109° 31′ 12. 6,597,00 0,42 164,84 6,891,12 524,97 430,50 14,528,257,32 2,064,918,13 39′ 59′ 47,891 N 109° 31′ 12. 6,597,00 0,69 156,48 6,891,11 521,70 14,528,251,38 2,064,918,37 39′ 59′ 47,837 N 109° 31′ 12. 6,597,00 0,69 156,48 6,891,11 521,70 14,528,251,37 2,064,913,37 39′ 59′ 47,891 N 109° 31′ 12. 6,597,00 0,69 156,48 6,891,11 521,70 14,508,141,14 14,528,251,38 2,064,918,37 39′ 59′ 47,891 N 109° 31′ 12. 6,597,00 0,69 156,48 6,891,11 521,70 14,508,141,14 14,528,251,38 2,064,918,37 39′ 59′ 47,891 N 109° 31′ 12. 6,597,00 0,69 156,48 6,891,11 521,70 14,508,141,14 14,528,251,38 2,064,921,06 39′ 59′ 47,891 N 109° 31′ 12. 6,597,00 0,69 156,48 6,891,11 521,70 14,508,141,14 14,528,251,38 2,064,921,06 39′ 59′ 47,891 N 109° 31′ 12. 6,597,00 0,69 156,48 6,490,14 14,528,251,38 2,064,921,06 39′ 59′ 47,891 N 109° 31′ 12. 7,480,00 0,74 157,85 7,051,10 520,73 432,11 14,528,251,88 2,064,921,06 39′ 59′ 47,781 N 109° 31′ 12. 7,498,00 0,74 157,85 7,751,10 520,73 432,11 14,528,251,88 2,064,921,06 39′ 59′ 47,781 N 109° 31′ 12. 7,591,00 0,90 147,60 7,503,05 514,75 435,34 14,528,244,31 2,064,921,33 39′ 59′ 47,781 N 109° 31′ 12. 7,591,00 0,90 147,60 7,503,05 514,75 435,34 14,528,244,31 2,064,921,33 39′ 59′ 47,781 N 109° 31′ 12. 7,583,00 0,90 147,80 7,9	5,781.00	0.91	206.81	5,693.23	537.83	427.87	14,528,268.89	2,054,916.54	39° 59' 47.971 N	109° 31' 12.1
6,052,00 0,59 173,80 5,964,21 553,48 427,84 14,528,265,41 2,054,916,08 39,59,47,397 N 109,311,2 6,233,00 0,86 161,97 6,145,20 533,45 428,80 14,528,263,51 2,054,916,84 39,59,47,918 N 109,311,2 6,234,00 0,87 156,62 6,236,18 531,77 428,57 14,528,264,55 2,054,916,84 39,59,47,918 N 109,311,2 6,505,00 1,16 161,14 6,326,17 529,88 429,14 14,528,269,06 2,054,917,35 39,59,47,891 N 109,311,2 6,505,00 1,11 161,84 6,326,17 529,88 429,14 14,528,269,06 2,054,917,35 39,59,47,891 N 109,311,2 6,505,00 1,11 161,84 6,326,17 528,98 429,14 14,528,269,06 2,054,917,35 39,59,47,891 N 109,311,2 6,696,00 0,47 196,41 6,598,12 524,97 430,50 14,528,269,07 2,054,917,35 39,59,47,891 N 109,311,2 6,696,00 0,47 196,41 6,598,12 524,97 430,50 14,528,269,07 2,054,919,38 39,59,47,891 N 109,311,2 6,887,00 0,57 159,00 6,99 166,46 6,869,11 524,49 430,48 14,528,269,07 2,054,919,38 39,59,47,891 N 109,311,2 6,887,00 0,57 159,00 6,89 166,46 6,869,11 522,44 431,10 14,528,269,46 2,054,919,83 39,59,47,891 N 109,311,2 7,149,00 0,65 146,82 6,960,11 522,64 431,10 14,528,269,46 2,054,919,83 39,59,47,891 N 109,311,2 7,149,00 0,66 146,82 6,960,11 522,64 431,10 14,528,269,46 2,054,919,83 39,59,47,810 N 109,311,2 7,290,00 0,86 150,48 7,48 1 N 109,311,2 7,290,00 0,86 150,48 7,48 1 N 109,311,2 7,290,00 0,86 150,48 7,44 1 N 109,311,2 7,290,00 0,86 150,48 7,48 7,48 1 N 109,311,2 7,290,00 0,80 150,48 7,48	5,871.00	0.79	190.60	5,783.22			14,528,267.63		39° 59' 47.959 N	109° 31' 12.1
6_143_00	5,962.00	0.72								109° 31' 12.1
6,234,00	•									
6,324,00 0,87 156,62 6,236,18 531.17 428.57 14,528,262.24 2,054,917.35 39° 59′ 47.596 N 109° 31′ 12,656,00 1,16 161.84 6,327.17 559.77 429.71 14,528,269.06 2,054,918.54 39° 59′ 47.897 N 109° 31′ 12,656.00 1,11 161.84 6,417.15 527.97 429.71 14,528,269.06 2,054,918.54 39° 59′ 47.897 N 109° 31′ 12,656.00 1,11 161.84 6,417.15 527.97 429.71 14,528,269.06 2,054,918.54 39° 59′ 47.897 N 109° 31′ 12,677.00 0,42 164.84 6,689.12 524.29 430.50 14,528,265.73 2,054,919.37 39° 59′ 47.897 N 109° 31′ 12,677.00 0,57 156.00 6,779 12′ 523.55 430.72 14,528,255.39 2,054,919.37 39° 59′ 47.897 N 109° 31′ 12,695.00 0,57 156.00 6,779 12′ 523.55 430.72 14,528,253.39 2,054,919.37 39° 59′ 47.897 N 109° 31′ 12,695.00 0,57 156.00 6,779 12′ 523.55 430.72 14,528,254.39 2,054,919.37 39° 59′ 47.891 N 109° 31′ 12,695.00 0,58 146.52 6,869.11 522.64 431.10 14,528,253.75 2,054,200.02 39° 59′ 47.891 N 109° 31′ 12,7048.00 0,55 146.52 6,960.11 522.64 431.60 14,528,253.75 2,054,200.02 39° 59′ 47.891 N 109° 31′ 12,7048.00 0,57 156.00 0,77 157.85 7,051.10 520.73 432.11 14,528,251.88 2,054,201.69 39° 59′ 47.891 N 109° 31′ 12,7048.00 0,75 156.39 7,320.80 518.64 433.22 14.528,248.55 2,054,220.64 39° 59′ 47.891 N 109° 31′ 12,7049.00 0,75 156.39 7,320.80 518.64 433.22 14.528,248.55 2,054,221.68 39° 59′ 47.780 N 109° 31′ 12,7049.00 0,75 156.39 7,320.80 518.64 433.22 14.528,248.55 2,054,221.63 39° 59′ 47.780 N 109° 31′ 12,7049.00 0,75 156.39 7,320.80 518.64 433.22 14.528,248.55 2,054,221.63 39° 59′ 47.780 N 109° 31′ 12,7049.00 0,75 156.39 7,320.80 518.64 433.22 14.528,248.55 2,054,221.63 39° 59′ 47.780 N 109° 31′ 12,7049.00 0,75 156.39 7,320.80 518.64 433.22 14.528,248.55 2,054,221.63 39° 59′ 47.780 N 109° 31′ 12,7049.00 0,75 156.39 7,320.80 518.64 433.22 14.528,248.55 2,054,221.63 39° 59′ 47.780 N 109° 31′ 12,7049.00 0,75 156.89 7,796.00 518.45 14.528,248.55 2,054,248.59 39° 59′ 47.780 N 109° 31′ 12,7049.00 0,70 120.18 14.780 14.780 14.780 14.528,248.50 14.528,248.50 14.528,248.50 14.528,248.50 14.528,248.50 14.528,248.50 14.528,248.50 14.528,248.50 14.528,248.		0.59								
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6,596,00 1.11 161,84 6,417.15 527.97 429.71 14,528,259.06 2,054,918.54 39* 59* 47.874 N 109* 31*12. 6,686,00 0.47 196.41 6,598.12 524.29 430.80 14,528,255.32 2,054,919.35 39* 59* 47.874 N 109* 31*12. 6,687.00 0.42 164.64 6,689.12 524.29 430.48 14,528,255.39 2,054,919.37 39* 59* 47.837 N 109* 31*12. 6,687.00 0.69 156.46 6,869.11 521.70 431.50 14,528,253.35 2,054,919.63 39* 59* 47.830 N 109* 31*12. 7,048.00 0.65 146.82 6,960.11 521.70 431.50 14,528,253.35 2,054,920.02 39* 59* 47.821 N 109* 31*12. 7,139.00 0.74 157.85 7,051.10 520.73 432.11 14,528,251.86 2,054,920.54 39* 59* 47.821 N 109* 31*12. 7,129.00 0.86 150.09 7,141.09 519.80 432.66 14,528,252.83 2,054,920.54 39* 59* 47.820 N 109* 31*12. 7,229.00 0.87 159.89 7,232.08 518.45 433.22 14,528,248.81 2,054,922.13 39* 59* 47.780 N 109* 31*12. 7,230.00 0.75 1568.93 7,232.08 518.45 433.22 14,528,248.81 2,054,922.13 39* 59* 47.780 N 109* 31*12. 7,410.00 0.77 147.88 7,322.07 517.39 433.75 14,528,245.86 2,054,922.76 39* 59* 47.780 N 109* 31*12. 7,591.00 0.90 147.60 7,503.05 514.75 435.34 14,528,245.93 2,054,922.76 39* 59* 47.780 N 109* 31*12. 7,772.00 0.42 189.98 7,584.04 513.81 435.67 14,528,245.93 2,054,924.73 39* 59* 47.730 N 109* 31*12. 7,772.00 0.42 189.98 7,584.04 513.81 435.67 14,528,245.31 2,054,924.74 39* 59* 47.730 N 109* 31*12. 7,772.00 0.42 189.99 7,765.04 512.38 435.84 14,528,245.93 2,054,924.73 39* 59* 47.730 N 109* 31*12. 7,772.00 0.40 171.81 7,584.04 513.81 435.67 14,528,245.93 2,054,924.73 39* 59* 47.730 N 109* 31*12. 7,772.00 0.80 155.87 7,775.04 512.38 435.84 14,528,245.93 2,054,924.73 39* 59* 47.730 N 109* 31*12. 8,044.00 0.70 103.18 7,966.02 510.90 437.42 41,528,245.13 2,054,924.73 39* 59* 47.730 N 109* 31*12. 8,245.00 0.55 173.69 8,000 50.91 44.40 8,000 50.91 44.40 8,000 50.91 44.50 8,000 50.91 44.50 8,000 50.91 44.50 8,000 50.91 44.50 8,000 50.91 44.50 8,000 50.91 44.50 8,000 50.91 44.50 8,000 50.91 44.50 8,000 50.91 44.50 8,000 50.91 44.50 8,000 50.91 44.50 8,000 50.91 44.50 8,000 50.91 44.50 8,000 50.91 44.50 8,000 50.91 44.50 8,000 50.91 44.50	6,324.00	0.87	156.62	6,236.18						
6,586,00	6,414.00		161.14	6,326.17						
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8,768.00 0.44 124.04 8,679.99 508.69 443.80 14,528,239.44 2,054,932.95 39° 59′ 47.683 N 109° 31′ 11. 8,859.00 0.79 128.88 8,770.98 508.10 444.58 14,528,239.44 2,054,933.74 39° 59′ 47.677 N 109° 31′ 11. 8,949.00 0.51 96.84 8,860.97 507.66 445.46 14,528,239.02 2,054,934.63 39° 59′ 47.673 N 109° 31′ 11. 9,040.00 0.69 123.29 8,951.97 507.31 446.32 14,528,238.68 2,054,935.49 39° 59′ 47.670 N 109° 31′ 11. 9,130.00 0.51 109.23 9,041.96 506.88 447.15 14,528,238.27 2,054,936.33 39° 59′ 47.665 N 109° 31′ 11. 9,226.00 1.19 80.83 9,137.95 506.90 448.54 14,528,238.31 2,054,937.72 39° 59′ 47.666 N 109° 31′ 11. 9,317.00 1.02 71.53 9,228.94 507.31 450.24 14,528,238.31 2,054,939.41 39° 59′ 47.670 N 109° 31′ 11. 9,407.00 1.18 101.77 9,318.92 507.37 451.91 14,528,238.83 2,054,941.08 39° 59′ 47.665 N 109° 31′ 11. 9,498.00 1.21 109.85 9,409.90 506.85 453.73 14,528,238.35 2,054,942.91 39° 59′ 47.666 N 109° 31′ 11. 9,588.00 1.20 94.52 9,499.88 506.46 455.56 14,528,237.98 2,054,944.75 39° 59′ 47.661 N 109° 31′ 11. 9,679.00 0.48 83.20 9,680.84 506.40 459.18 14,528,237.99 2,054,948.80 39° 59′ 47.664 N 109° 31′ 11. 9,8651.00 0.39 20.39 9,762.84 506.71 459.62 14,528,238.30 2,054,948.80 39° 59′ 47.664 N 109° 31′ 11. LAST SDI MWD PRODUCTION SURVEY										
8,859.00 0.79 128.88 8,770.98 508.10 444.58 14,528,239.44 2,054,933.74 39° 59' 47.677 N 109° 31' 11. 8,949.00 0.51 96.84 8,860.97 507.66 445.46 14,528,239.02 2,054,934.63 39° 59' 47.673 N 109° 31' 11. 9,040.00 0.69 123.29 8,951.97 507.31 446.32 14,528,238.68 2,054,935.49 39° 59' 47.670 N 109° 31' 11. 9,130.00 0.51 109.23 9,041.96 506.88 447.15 14,528,238.27 2,054,936.33 39° 59' 47.665 N 109° 31' 11. 9,226.00 1.19 80.83 9,137.95 506.90 448.54 14,528,238.31 2,054,937.72 39° 59' 47.666 N 109° 31' 11. 9,317.00 1.02 71.53 9,228.94 507.31 450.24 14,528,238.31 2,054,939.41 39° 59' 47.670 N 109° 31' 11. 9,407.00 1.18 101.77 9,318.92 507.37 451.91 14,528,238.33 2,054,941.08 39° 59' 47.670 N 109° 31' 11. 9,498.00 1.21 109.85 9,409.90 506.85 453.73 14,528,238.35 2,054,942.91 39° 59' 47.665 N 109° 31' 11. 9,588.00 1.20 94.52 9,499.88 506.46 455.56 14,528,237.98 2,054,944.75 39° 59' 47.661 N 109° 31' 11. 9,679.00 1.45 90.61 9,590.86 506.37 457.67 14,528,237.93 2,054,948.80 39° 59' 47.661 N 109° 31' 11. 9,769.00 0.48 83.20 9,680.84 506.40 459.18 14,528,237.99 2,054,948.80 39° 59' 47.664 N 109° 31' 11. 9,8651.00 0.39 20.39 9,762.84 506.71 459.62 14,528,238.30 2,054,948.80 39° 59' 47.664 N 109° 31' 11. LAST SDI MWD PRODUCTION SURVEY	•			-						
8,949.00 0.51 96.84 8,860.97 507.66 445.46 14,528,239.02 2,054,934.63 39° 59' 47.673 N 109° 31' 11. 9,040.00 0.69 123.29 8,951.97 507.31 446.32 14,528,238.68 2,054,935.49 39° 59' 47.670 N 109° 31' 11. 9,130.00 0.51 109.23 9,041.96 506.88 447.15 14,528,238.27 2,054,936.33 39° 59' 47.665 N 109° 31' 11. 9,226.00 1.19 80.83 9,137.95 506.90 448.54 14,528,238.31 2,054,937.72 39° 59' 47.666 N 109° 31' 11. 9,317.00 1.02 71.53 9,228.94 507.31 450.24 14,528,238.31 2,054,939.41 39° 59' 47.670 N 109° 31' 11. 9,407.00 1.18 101.77 9,318.92 507.37 451.91 14,528,238.83 2,054,941.08 39° 59' 47.670 N 109° 31' 11. 9,498.00 1.21 109.85 9,409.90 506.85 453.73 14,528,238.35 2,054,942.91 39° 59' 47.665 N 109° 31' 11. 9,588.00 1.20 94.52 9,499.88 506.46 455.56 14,528,237.98 2,054,944.75 39° 59' 47.661 N 109° 31' 11. 9,679.00 1.45 90.61 9,590.86 506.37 457.67 14,528,237.93 2,054,948.80 39° 59' 47.661 N 109° 31' 11. 9,769.00 0.48 83.20 9,680.84 506.40 459.18 14,528,237.99 2,054,948.80 39° 59' 47.664 N 109° 31' 11. 9,861.00 0.39 20.39 9,762.84 506.71 459.62 14,528,238.30 2,054,948.80 39° 59' 47.664 N 109° 31' 11. LAST SDI MWD PRODUCTION SURVEY										
9,040.00 0.69 123.29 8,951.97 507.31 446.32 14,528,238.68 2,054,935.49 39° 59' 47.670 N 109° 31' 11. 9,130.00 0.51 109.23 9,041.96 506.88 447.15 14,528,238.27 2,054,936.33 39° 59' 47.665 N 109° 31' 11. 9,226.00 1.19 80.83 9,137.95 506.90 448.54 14,528,238.31 2,054,937.72 39° 59' 47.666 N 109° 31' 11. 9,317.00 1.02 71.53 9,228.94 507.31 450.24 14,528,238.74 2,054,939.41 39° 59' 47.670 N 109° 31' 11. 9,407.00 1.18 101.77 9,318.92 507.37 451.91 14,528,238.83 2,054,941.08 39° 59' 47.670 N 109° 31' 11. 9,498.00 1.21 109.85 9,409.90 506.85 453.73 14,528,238.35 2,054,941.08 39° 59' 47.665 N 109° 31' 11. 9,588.00 1.20 94.52 9,499.88 506.46 455.56 14,528,237.98 2,054,944.75 39° 59' 47.661 N 109° 31' 11. 9,679.00 1.45 90.61 9,590.86 506.37 457.67 14,528,237.93 2,054,946.85 39° 59' 47.660 N 109° 31' 11. 9,769.00 0.48 83.20 9,680.84 506.40 459.18 14,528,237.99 2,054,948.80 39° 59' 47.664 N 109° 31' 11. 9,851.00 0.39 20.39 9,762.84 506.71 459.62 14,528,238.30 2,054,948.80 39° 59' 47.664 N 109° 31' 11. LAST SDI MWD PRODUCTION SURVEY										
9,130.00 0.51 109.23 9,041.96 506.88 447.15 14,528,238.27 2,054,936.33 39° 59' 47.665 N 109° 31' 11. 9,226.00 1.19 80.83 9,137.95 506.90 448.54 14,528,238.31 2,054,937.72 39° 59' 47.666 N 109° 31' 11. 9,317.00 1.02 71.53 9,228.94 507.31 450.24 14,528,238.74 2,054,939.41 39° 59' 47.670 N 109° 31' 11. 9,407.00 1.18 101.77 9,318.92 507.37 451.91 14,528,238.83 2,054,941.08 39° 59' 47.670 N 109° 31' 11. 9,498.00 1.21 109.85 9,409.90 506.85 453.73 14,528,238.35 2,054,942.91 39° 59' 47.665 N 109° 31' 11. 9,588.00 1.20 94.52 9,499.88 506.46 455.56 14,528,237.98 2,054,944.75 39° 59' 47.661 N 109° 31' 11. 9,679.00 1.45 90.61 9,590.86 506.37 457.67 14,528,237.93 2,054,946.85 39° 59' 47.660 N 109° 31' 11. 9,769.00 0.48 83.20 9,680.84 506.40 459.18 14,528,237.99 2,054,948.36 39° 59' 47.664 N 109° 31' 11. 9,851.00 0.39 20.39 9,762.84 506.71 459.62 14,528,238.30 2,054,948.80 39° 59' 47.664 N 109° 31' 11.				•						
9,226.00 1.19 80.83 9,137.95 506.90 448.54 14,528,238.31 2,054,937.72 39° 59' 47.666 N 109° 31' 11. 9,317.00 1.02 71.53 9,228.94 507.31 450.24 14,528,238.74 2,054,939.41 39° 59' 47.670 N 109° 31' 11. 9,407.00 1.18 101.77 9,318.92 507.37 451.91 14,528,238.83 2,054,941.08 39° 59' 47.670 N 109° 31' 11. 9,498.00 1.21 109.85 9,409.90 506.85 453.73 14,528,238.35 2,054,942.91 39° 59' 47.665 N 109° 31' 11. 9,588.00 1.20 94.52 9,499.88 506.46 455.56 14,528,237.98 2,054,944.75 39° 59' 47.661 N 109° 31' 11. 9,679.00 1.45 90.61 9,590.86 506.37 457.67 14,528,237.93 2,054,946.85 39° 59' 47.660 N 109° 31' 11. 9,769.00 0.48 83.20 9,680.84 506.40 459.18 14,528,237.99 2,054,948.36 39° 59' 47.664 N 109° 31' 11. 9,851.00 0.39 20.39 9,762.84 506.71 459.62 14,528,238.30 2,054,948.80 39° 59' 47.664 N 109° 31' 11. LAST SDI MWD PRODUCTION SURVEY										
9,317.00 1.02 71.53 9,228.94 507.31 450.24 14,528,238.74 2,054,939.41 39° 59' 47.670 N 109° 31' 11. 9,407.00 1.18 101.77 9,318.92 507.37 451.91 14,528,238.83 2,054,941.08 39° 59' 47.670 N 109° 31' 11. 9,498.00 1.21 109.85 9,409.90 506.85 453.73 14,528,238.35 2,054,942.91 39° 59' 47.665 N 109° 31' 11. 9,588.00 1.20 94.52 9,499.88 506.46 455.56 14,528,237.98 2,054,944.75 39° 59' 47.661 N 109° 31' 11. 9,679.00 1.45 90.61 9,590.86 506.37 457.67 14,528,237.93 2,054,946.85 39° 59' 47.660 N 109° 31' 11. 9,769.00 0.48 83.20 9,680.84 506.40 459.18 14,528,237.99 2,054,948.36 39° 59' 47.661 N 109° 31' 11. 9,851.00 0.39 20.39 9,762.84 506.71 459.62 14,528,238.30 2,054,948.80 39° 59' 47.664 N 109° 31' 11. LAST SDI MWD PRODUCTION SURVEY								•		
9,407.00 1.18 101.77 9,318.92 507.37 451.91 14,528,238.83 2,054,941.08 39° 59' 47.670 N 109° 31' 11. 9,498.00 1.21 109.85 9,409.90 506.85 453.73 14,528,238.35 2,054,942.91 39° 59' 47.665 N 109° 31' 11. 9,588.00 1.20 94.52 9,499.88 506.46 455.56 14,528,237.98 2,054,944.75 39° 59' 47.661 N 109° 31' 11. 9,679.00 1.45 90.61 9,590.86 506.37 457.67 14,528,237.93 2,054,946.85 39° 59' 47.660 N 109° 31' 11. 9,769.00 0.48 83.20 9,680.84 506.40 459.18 14,528,237.99 2,054,948.36 39° 59' 47.661 N 109° 31' 11. 9,851.00 0.39 20.39 9,762.84 506.71 459.62 14,528,238.30 2,054,948.80 39° 59' 47.664 N 109° 31' 11. LAST SDI MWD PRODUCTION SURVEY	-									
9,498.00 1.21 109.85 9,409.90 506.85 453.73 14,528,238.35 2,054,942.91 39° 59' 47.665 N 109° 31' 11. 9,588.00 1.20 94.52 9,499.88 506.46 455.56 14,528,237.98 2,054,944.75 39° 59' 47.661 N 109° 31' 11. 9,679.00 1.45 90.61 9,590.86 506.37 457.67 14,528,237.93 2,054,946.85 39° 59' 47.660 N 109° 31' 11. 9,769.00 0.48 83.20 9,680.84 506.40 459.18 14,528,237.99 2,054,948.36 39° 59' 47.661 N 109° 31' 11. 9,851.00 0.39 20.39 9,762.84 506.71 459.62 14,528,238.30 2,054,948.80 39° 59' 47.664 N 109° 31' 11. LAST SDI MWD PRODUCTION SURVEY										
9,588.00 1.20 94.52 9,499.88 506.46 455.56 14,528,237.98 2,054,944.75 39° 59' 47.661 N 109° 31' 11. 9,679.00 1.45 90.61 9,590.86 506.37 457.67 14,528,237.93 2,054,946.85 39° 59' 47.660 N 109° 31' 11. 9,769.00 0.48 83.20 9,680.84 506.40 459.18 14,528,237.99 2,054,948.36 39° 59' 47.661 N 109° 31' 11. 9,851.00 0.39 20.39 9,762.84 506.71 459.62 14,528,238.30 2,054,948.80 39° 59' 47.664 N 109° 31' 11. LAST SDI MWD PRODUCTION SURVEY				·						
9,679.00 1.45 90.61 9,590.86 506.37 457.67 14,528,237.93 2,054,946.85 39° 59' 47.660 N 109° 31' 11. 9,769.00 0.48 83.20 9,680.84 506.40 459.18 14,528,237.99 2,054,948.36 39° 59' 47.661 N 109° 31' 11. 9,851.00 0.39 20.39 9,762.84 506.71 459.62 14,528,238.30 2,054,948.80 39° 59' 47.664 N 109° 31' 11. LAST SDI MWD PRODUCTION SURVEY										
9,769.00 0.48 83.20 9,680.84 506.40 459.18 14,528,237.99 2,054,948.36 39° 59' 47.661 N 109° 31' 11. 9,851.00 0.39 20.39 9,762.84 506.71 459.62 14,528,238.30 2,054,948.80 39° 59' 47.664 N 109° 31' 11. LAST SDI MWD PRODUCTION SURVEY										
9,851.00 0.39 20.39 9,762.84 506.71 459.62 14,528,238.30 2,054,948.80 39° 59' 47.664 N 109° 31' 11. LAST SDI MWD PRODUCTION SURVEY										
LAST SDI MWD PRODUCTION SURVEY										
					506.71	459.62	14,528,238.30	2,054,948.80	39° 59' 47.664 N	109° 31' 11.7



SDISurvey Report - Geographic



Company: Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12
Site: NBU 921-35F2 Pad
Well: NBU 921-35C4CS

Wellbore: OH Design: OH Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method: Database: Well NBU 921-35C4CS

GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139) GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139)

True

Minimum Curvature
EDM5000-RobertS-Local

Checked By:	Approved By:	Date:
Officered by.	Approved by.	Date.



Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12 NBU 921-35F2 Pad NBU 921-35C4CS

OH

Design: OH

Survey Report - Geographic

10 June, 2011





SDI Survey Report - Geographic



Company:

Kerr McGee Oil and Gas Onshore LP

Project: Site:

Uintah County, UT UTM12 NBU 921-35F2 Pad NBU 921-35C4CS

Well: Wellbore: Design:

OH OH Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method: Database:

Well NBU 921-35C4CS

GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139)

GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139)

Minimum Curvature EDM5000-RobertS-Local

Project

Uintah County, UT UTM12

Map System: Geo Datum: Map Zone:

Universal Transverse Mercator (US Survey Feet)

NAD 1927 - Western US

Zone 12N (114 W to 108 W)

System Datum:

Mean Sea Level

Site

NBU 921-35F2 Pad, SEC 35 T9S R21E

Site Position:

Northing:

14,527,718.98 usft 2.054.478.12 usft

Latitude: Longitude:

39° 59' 42,608 N

From: **Position Uncertainty:** Lat/Long

Easting: **Slot Radius:**

13.200 in

109° 31' 17.940 W

0.00 ft

Grid Convergence:

0.95 °

Well NBU 921-35C4CS, 1686' FNL 1699' FWL

Well Position

+N/-S +E/-W 0.00 ft 0.00 ft

Northing: Easting:

14,527,724.04 usft 2,054,497.65 usft Latitude: Longitude: 39° 59' 42.655 N

Position Uncertainty

0.00 ft

Welfhead Elevation:

ft

Ground Level:

109° 31' 17.688 W 5,105.00 ft

Wellbore

OH

Magnetics

Model Name

Sample Date

Declination (°)

Dip Angle (°)

Field Strength

(nT)

IGRF2010

04/05/2011

11.11

65.86

52,342

Design

Audit Notes:

Version:

1.0

OH

Phase:

ACTUAL

Tie On Depth:

0.00

Vertical Section:

Depth From (TVD)

+N/-S

+E/-W

Direction

(ft)

(°)

0.00

0.00

0.00

36.30

Survey Program

06/10/2011 Date

To

(ft)

Survey (Wellbore)

Tool Name

Description

10.00 2,703.00 2,605.00 Survey #1 SDI MWD SURFACE (OH) 9,905.00 Survey #2 SDI MWD PRODUCTION (OH) MWD SDI MWD SDI MWD - Standard ver 1.0.1 MWD - Standard ver 1.0.1

Measured			Vertical			Map	Map		
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Northing	Easting		
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	14,527,724.04	2,054,497.65	39° 59' 42.655 N	109° 31' 17.688
10.00	0.00	0.00	10.00	0.00	0.00	14,527,724.04	2,054,497.65	39° 59′ 42.655 N	109° 31' 17.688
163.00	0.79	3.38	163.00	1.05	0.06	14,527,725.09	2,054,497.69	39° 59' 42.666 N	109° 31' 17.687
FIRST SI	OI MWD SURF	ACE SURVE	Y						
250.00	0.62	19.20	249.99	2.10	0.25	14,527,726.14	2,054,497.87	39° 59' 42.676 N	109° 31' 17.685
334.00	1.58	357.14	333.97	3.68	0.34	14,527,727.72	2,054,497.93	39° 59′ 42.692 N	109° 31' 17.684
424.00	3.08	6.72	423.90	7.32	0.57	14,527,731.37	2,054,498.09	39° 59′ 42.728 N	109° 31' 17.681
514.00	4.40	19.20	513.70	12.98	1.98	14,527,737.05	2,054,499.42	39° 59' 42.784 N	109° 31' 17.663
604.00	5.19	24.56	603.39	19.95	4.81	14,527,744.06	2,054,502.13	39° 59' 42.852 N	109° 31' 17.626
694.00	5.28	22.36	693.01	27.48	80.8	14,527,751.65	2,054,505.27	39° 59' 42.927 N	109° 31' 17.584
784.00	5.89	30.45	782.59	35.29	11.99	14.527,759.52	2.054.509.05	39° 59′ 43.004 N	109° 31' 17.534



SDISurvey Report - Geographic



Company: Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12
Site: NBU 921-35F2 Pad

Well: NBU 921-35C4CS

Wellbore: OH
Design: OH

Local Co-ordinate Reference:

TVD Reference: GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139)

MD Reference: GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139)

Well NBU 921-35C4CS

North Reference: T

Survey Calculation Method: Minimum Curvature

Database: EDM5000-RobertS-Local

vey									
Measured			Vertical		1.000	Map	Map		
Depth (ft)	Inclination (°)	Azimuth (°)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
874.00	6.95	35.72		SANTALON (CHICA)	evangkan kan		The and the second an		
964.00	8.79	35.72 36.86	872.02 961.17	43.69 53.62	17.51 24.82	14,527,768.01	2,054,514.43	39° 59' 43.087 N	109° 31' 17.46:
1,054.00	9.94	30.00 34.84	1,049.97	65.49		14,527,778.06	2,054,521.57	39° 59' 43.185 N	109° 31' 17.369
1,144.00	11.17	34.40	1,138.45	79.06	33.38 42.74	14,527,790.08	2,054,529.94 2,054,539.07	39° 59' 43.303 N	109° 31' 17.259
1,234.00	12.57	34.40	1,136.43	79.06 94.49	52.96	14,527,803.80		39° 59' 43.437 N	109° 31' 17.13
1,324.00	13.28	37.21	1,314.24	110.97	64.51	14,527,819.40	2,054,549.04 2,054,560,31	39° 59' 43,589 N	109° 31' 17.00
1,414.00	13.23	36.33	1,401.77	127.74	77.04	14,527,836.06 14,527,853.04	2,054,572.56	39° 59' 43.752 N 39° 59' 43.918 N	109° 31' 16.85
1,504.00	14.68	38.53	1,489.04	145.21	90.43	14,527,853.04	2,054,585.66	39° 59' 44.090 N	109° 31' 16.69
1,594.00	15.65	38.97	1,575.90	163.57	105.17	14,527,889.33	2,054,600.09	39° 59' 44.272 N	109° 31' 16.52 109° 31' 16.33
1,684.00	16.97	37.65	1,662.28	183.40	120.83	14,527,909.42	2,054,615.42	39° 59' 44.468 N	
1,774.00	17.76	37.65	1,748.18	204.67	137.24	14,527,909.42			109° 31' 16.13
1,864.00	17.75	38.44	1,833.86	226.34	154.20		2,054,631.47	39° 59' 44.678 N	109° 31′ 15.92
1,954.00	18.29	37.57	1,919.43	248.34	171.38	14,527,952.91 14,527,975.19	2,054,648.07	39° 59′ 44.892 N	109° 31' 15.70
2,044.00	18.64	39.67	2,004.79	270.61	189.17	14,527,975.19	2,054,664.89	39° 59' 45,110 N	109° 31' 15.48
2,134.00	18.99	40.20	2,004.75	292.86	207.81		2,054,682.31	39° 59' 45.330 N	109° 31' 15.25
2,134.00	17.15	38.62	2,009.50	314.42	225.54	14,528,020.30	2,054,700.57	39° 59' 45.550 N	109° 31' 15.01
2,314.00	16.18	38.44	2,175.54	334.60	241.62	14,528,042.15	2,054,717.94	39° 59' 45.763 N 39° 59' 45.963 N	109° 31' 14.79
2,404.00	15.83	38.18	2,348.27			14,528,062.60	2,054,733.69		109° 31' 14.58
2,494.00	15.92	39.23		354.08 373.29	257.01	14,528,082.33	2,054,748.74	39° 59' 46.155 N	109° 31' 14.38
-			2,434.84		272.40	14,528,101.79	2,054,763.82	39° 59' 46.345 N	109° 31' 14.18
2,605.00	17.15	38.80	2,541.25	397.83	292.28	14,528,126.66	2,054,783.29	39° 59′ 46.588 N	109° 31' 13.93
	I MWD SURFA			440.44	000.07	44 500 440 54	0.054.700.70	000 501 40 004 11	
2,703.00	15.28	36.78	2,635.35	419.44	309.07	14,528,148.54	2,054,799.72	39° 59′ 46.801 N	109° 31' 13.71
	MWD PROD								
2,793.00	15.34	41.16	2,722.15	437.90	324.01	14,528,167.25	2,054,814.34	39° 59′ 46.984 N	109° 31' 13.52
2,884.00	14.17	40.59	2,810.15	455.42	339.18	14,528,185.02	2,054,829.22	39° 59' 47.157 N	109° 31' 13.32
2,974.00	13.95	39.90	2,897.46	472.11	353.30	14,528,201.94	2,054,843.07	39° 59' 47.322 N	109° 31' 13.14
3,065.00	12.55	38.32	2,986.03	488.28	366.47	14,528,218.33	2,054,855.97	39° 59′ 47.482 N	109° 31' 12.97
3,155.00	11.46	38.25	3,074.06	502.98	378.07	14,528,233.21	2,054,867.32	39° 59′ 47.627 N	109° 31' 12.82
3,246.00	11.11	36.87	3,163.30	517.09	388.92	14,528,247.51	2,054,877.94	39° 59' 47.766 N	109° 31' 12.69
3,336.00	10.28	39.22	3,251.74	530.25	399.21	14,528,260.83	2,054,888.00	39° 59' 47.896 N	109° 31' 12.55
3,427.00	9.68	38.03	3,341.36	542.57	409.05	14,528,273.31	2,054,897.64	39° 59' 48.018 N	109° 31' 12.43
3,517.00	7.25	38.95	3,430.37	552.94	417.29	14,528,283.83	2,054,905.70	39° 59' 48.121 N	109° 31' 12.32
3,608.00	5.13	49.13	3,520.84	560.07	423.97	14,528,291.06	2,054,912.27	39° 59' 48.191 N	109° 31' 12.23
3,699.00	2.77	47.91	3,611.62	5 64 .21	428.68	14,528,295.28	2,054,916.91	39° 59′ 48.232 N	109° 31' 12.17
3,789.00	1.41	74.35	3,701.56	565.97	431.36	14,528,297.08	2,054,919.56	39° 59′ 48.249 N	109° 31' 12.14
3,880.00	0.95	125.23	3,792.54	565.83	433.06	14,528,296.97	2,054,921.26	39° 59' 48.248 N	109° 31' 12.12
3,970.00	0.90	127.87	3,882.53	564.97	434.22	14,528,296.13	2,054,922.44	39° 59' 48.240 N	109° 31' 12.10
4,061.00	1.15	142.52	3,973.52	563.80	435.34	14,528,294.98	2,054,923.58	39° 59' 48.228 N	109° 31' 12.09
4,151.00	1.31	147.73	4,063.49	562.22	436.44	14,528,293.42	2,054,924.70	39° 59' 48.212 N	109° 31' 12.07
4,242.00	1.31	150.14	4,154.47	560.44	437.52	14,528,291.65	2,054,925.81	39° 59' 48.195 N	109° 31' 12.06
4,332.00	0.96	160.93	4,244.45	558.83	438.27	14,528,290.06	2,054,926.59	39° 59' 48.179 N	109° 31' 12.05
4,423.00	1.10	164.88	4,335.44	557.27	438.75	14,528,288.50	2,054,927.09	39° 59' 48.163 N	109° 31' 12.04
4,513.00	0.67	218.21	4,425.43	556.02	438.65	14,528,287.26	2,054,927.02	39° 59' 48.151 N	109° 31′ 12.05
4,604.00	0.90	215.10	4,516.42	555.02	437.91	14,528,286.24	2,054,926.29	39° 59′ 48.141 N	109° 31' 12.06
4,694.00	0.78	199.74	4,606.41	553.86	437.30	14,528,285.08	2,054,925.70	39° 59' 48.130 N	109° 31' 12.06
4,785.00	0.93	178.43	4,697.40	552.54	437.11	14,528,283.75	2,054,925.53	39° 59' 48.117 N	109° 31' 12.07
4,875.00	1.14	174.83	4,787.39	550.92	437.21	14,528,282.13	2,054,925.66	39° 59' 48.101 N	109° 31' 12.06
4,966.00	1.32	225.99	4,878.37	549.29	436.54	14,528,280.49	2,054,925.01	39° 59' 48.085 N	109° 31' 12.07
5,056.00	1.37	225.71	4,968.34	547.82	435.02	14,528,278.99	2,054,923.52	39° 59′ 48.070 N	109° 31' 12.09
5,147.00	1.20	225.60	5,059.32	546.39	433.56	14,528,277.54	2,054,922.09	39° 59' 48.056 N	109° 31' 12.11
5,237.00	1.18	222.60	5,149.30	545.05	432.26	14,528,276.18	2,054,920.81	39° 59' 48.043 N	109° 31' 12.13
5,328.00	. 1.12	224.79	5,240.28	543.73	431.00	14,528,274.84	2,054,919.57	39° 59' 48.030 N	109° 31' 12.14
5,418.00	0.93	208.74	5,330.27	542.46	430.03	14,528,273.56	2,054,918.62	39° 59' 48.017 N	109° 31' 12.16
5,509.00	0.88	201.24	5,421.26	541.17	429.42	14,528,272.25	2,054,918.03	39° 59' 48.004 N	109° 31' 12.169
5,600.00	0.81	193.76	5,512.25	539.89	429.02	14,528,270.97	2,054,917.65	39° 59′ 47.992 N	109° 31' 12.17



SDI

Survey Report - Geographic



Company: Project:

Site:

Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12 NBU 921-35F2 Pad

NBU 921-35C4CS

Well: Wellbore:

Design:

ОН

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Database:

Well NBU 921-35C4CS

GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139) GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139)

Trua

Minimum Curvature EDM5000-RobertS-Local

leasured Depth (ft)	inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ff)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,690.00	0.66	219.78	5,602.24	538.87	428,53	14,528,269.94	2,054,917.18	39° 59' 47.982 N	109° 31' 12.18'
5,781.00	0.91	206,81	5,693.23	537.83	427.87	14,528,268.89	2.054,916,54	39° 59' 47.971 N	109° 31' 12.18
5,871.00	0.79	190.60	5,783.22	536.58	427.43	14,528,267.63	2,054,916.12	39° 59′ 47.959 N	109° 31' 12.19
5,962.00	0.72	180.62	5,874.21	535.39	427.31	14,528,266.44	2,054,916.02	39° 59' 47.947 N	109° 31' 12.19
6,052.00	0.59	173.80	5,964.21	534.36	427.36	14,528,265.41	2,054,916.08	39° 59' 47.937 N	109° 31' 12.19
6,143.00	0.59	149.89	6,055.20	533.49	427.64	14,528,264.55	2,054,916.38	39° 59' 47.928 N	109° 31' 12.19
6,233.00	0.86	161.97	6,145.20	532.45	428.08	14,528,263.51	2,054,916.84	39° 59' 47.918 N	109° 31' 12.18
6,324.00	0.87	156.62	6,236.18	531.17	428.57	14,528,262.24	2,054,917.35	39° 59' 47.905 N	109° 31' 12.18
6,414.00	1.16	161.14	6,326.17	529.68	429.14	14,528,260.76	2.054,917.94	39° 59' 47,891 N	109° 31' 12.17
6,505.00	1.11	161.84	6,417.15	527.97	429.71	14,528,259.06	2,054,918.54	39° 59' 47.874 N	109° 31' 12.16
6,596.00	1.21	161.13	6,508.13	526.22	430.29	14,528,257.32	2,054,919.15	39° 59' 47.857 N	109° 31' 12.15
6,686.00	0.47	196.41	6,598.12	524.97	430.50	14,528,256.07	2,054,919.38	39° 59′ 47.844 N	109° 31' 12.15
6,777.00	0.42	164.84	6,689.12	524.29	430.48	14,528,255.39	2,054,919.37	39° 59' 47.837 N	109° 31' 12.15
6,867.00	0.57	159.00	6,779.12	523.55	430.72	14,528,254.66	2,054,919.63	39° 59' 47.830 N	109° 31' 12.15
6,957.00	0.69	156.46	6,869.11	522.64	431.10	14,528,253.75	2,054,920.02	39° 59' 47.821 N	109° 31' 12.14
7,048.00	0.65	146.82	6,960.11	521.70	431.60	14,528,252.83	2,054,920.54	39° 59' 47.812 N	109° 31' 12.14
7,139.00	0.74	157.85	7,051.10	520.73	432.11	14,528,251.86	2,054,921.06	39° 59' 47.802 N	109° 31' 12.13
7,229.00	0.86	150.09	7,141.09	519.60	432.66	14,528,250.74	2,054,921.63	39° 59' 47.791 N	109° 31' 12.12
7,320.00	0.75	158.93	7,232.08	518.45	433.22	14,528,249.61	2,054,922.21	39° 59' 47.780 N	109° 31' 12.12
7,410.00	0.77	147.88	7,322.07	517.39	433.75	14,528,248.55	2,054,922.76	39° 59' 47.769 N	109° 31' 12.11
7,501.00	1.12	149.97	7,413.06	516.10	434.52	14,528,247.28	2,054,923.55	39° 59′ 47.757 N	109° 31' 12.10
7,591.00	0.90	147.60	7,503.05	514.75	435.34	14,528,245.93	2,054,924.39	39° 59' 47.743 N	109° 31' 12.09
7,682.00	0.42	189.98	7,594.04	513.81	435.67	14,528,245.01	2,054,924.73	39° 59' 47.734 N	109° 31' 12.08
7,772.00	0.48	171.81	7,684.04	513.12	435.66	14,528,244.31	2,054,924.74	39° 59' 47.727 N	109° 31' 12.08
7,863.00	0.50	155.87	7,775.04	512.38	435.88	14,528,243.57	2,054,924.97	39° 59' 47.720 N	109° 31' 12.08
7,953.00	0.82	139.69	7,865.03	511.53	436.46	14,528,242.73	2,054,925.56	39° 59' 47.711 N	109° 31' 12.07
8,044.00	0.70	103.18	7,956.02	510.90	437.42	14,528,242.13	2,054,926.53	39° 59′ 47.705 N	109° 31' 12.06
8,134.00	0.86	131.55	8,046.01	510.33	438.46	14,528,241.57	2,054,927.58	39° 59' 47.700 N	109° 31' 12.05
8,225.00	0.55	73.51	8,137.01	510.00	439.39	14,528,241.26	2,054,928.52	39° 59' 47.696 N	109° 31' 12.04
8,316.00	0.14	119.88	8,228.01	510.07	439.90	14,528,241.33	2,054,929.03	39° 59' 47.697 N	109° 31' 12.03
8,406.00	0.55	127.66	8,318.01	509.75	440.34	14,528,241.02	2,054,929.47	39° 59' 47.694 N	109° 31' 12.02
8,497.00	0.68	125.34	8,409.00	509.17	441.13	14,528,240.46	2,054,930.27	39° 59' 47.688 N	109° 31' 12.01
8,587.00	0.67	82.11	8,498.99	508.94	442.08	14,528,240.23	2,054,931.23	39° 59' 47.686 N	109° 31' 12.00
8,678.00	0.58	98.05	8,589.99	508.94	443.07	14,528,240.26	2,054,932.21	39° 59' 47.686 N	109° 31' 11.99
8,768.00	0.44	124.04	8,679.99	508.69	443.80	14,528,240.01	2,054,932.95	39° 59' 47.683 N	109° 31' 11.98
8,859.00	0.79	128.88	8,770.98	508.10	444.58	14,528,239.44	2,054,933.74	39° 59' 47.677 N	109° 31' 11.97
8,949.00	0.51	96.84	8,860.97	507.66	445.46	14,528,239.02	2,054,934.63	39° 59' 47.673 N	109° 31' 11.96
9,040.00	0.69	123.29	8,951.97	507.31	446.32	14,528,238.68	2,054,935.49	39° 59' 47.670 N	109° 31' 11.95
9,130.00	0.51	109.23	9,041.96	506.88	447.15	14,528,238.27	2,054,936.33	39° 59' 47.665 N	109° 31' 11.94
9,226.00	1.19	80.83	9,137.95	506.90	448.54	14,528,238.31	2,054,937.72	39° 59' 47.666 N	109° 31' 11.92
9,317.00	1.02	71.53	9,228.94	507.31	450.24	14,528,238.74	2,054,939.41	39° 59' 47.670 N	109° 31' 11.90
9,407.00	1.18	101.77	9,318.92	507.37	451.91	14,528,238.83	2,054,941.08	39° 59' 47.670 N	109° 31' 11.88
9,498.00	1.21	109.85	9,409.90	506.85	453.73	14,528,238.35	2,054,942.91	39° 59' 47.665 N	109° 31' 11.85
9,588.00	1.20	94.52	9,499.88	506.46	455.56	14,528,237.98	2,054,944.75	39° 59' 47.661 N	109° 31' 11.83
9,679.00	1.45	90.61	9,590.86	506.37	457.67	14,528,237.93	2,054,946.85	39° 59′ 47.660 N	109° 31' 11.80
9,769.00	0.48	83.20	9,680.84	506.40	459.18	14,528,237.99	2,054,948.36	39° 59' 47.661 N	109° 31' 11.78
9,851.00	0.39	20.39	9,762.84	506.71	459.62	14,528,238.30	2,054,948.80	39° 59′ 47.664 N	109° 31' 11.78
LAST SD	I MWD PROD		VEV	• • • • •		1	,		
9,905.00	0.39	20.39	9,816.84	507.05	459.75	14,528,238.64	2,054,948.92	39° 59' 47.667 N	109° 31' 11.78



SDI



Survey Report - Geographic

Company: Project: Kerr McGee Oil and Gas Onshore LP

Project: Site:

Well:

Uintah County, UT UTM12 NBU 921-35F2 Pad NBU 921-35C4CS

Wellbore: Design:

OH OH Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method: Database: Well NBU 921-35C4CS

GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139)

GL 5105' & KB 14' @ 5119.00ft (ENSIGN 139)

Minimum Curvature
EDM5000-RobertS-Local

Measured Vertical Local Coordinates Depth +N/-S +E/-W (ft) (ft) (ft) 9,851.00 9,762.84 506.71 459.62 LAST SDI MWD PRODUCTION SURVEY	9,905.00	9,816.84	507.05	459.75	SDI PROJECTION TO TD
Depth Depth +N/-s +E/-W	9,851.00	9,762.84	506.71	459.62	LAST SDI MWD PRODUCTION SURVEY
	Depth	Depth	+N/-\$	+E/-W	Comment

Checked By:	Approved By:	Date	o :
•		······································	